

**Chattanooga-Hamilton County/North Georgia TPO
Interagency Consultation Committee Meeting**

February 2, 2016
10:00 AM
CHCNGA TPO Office

AGENDA

- | | |
|--|-------------|
| 1. Roll Call | Betsy Evans |
| 2. Approval of December 3, 2015 Minutes | Betsy Evans |
| 3. RTP Amendment & Accompanying CDR <ul style="list-style-type: none">• Planning Assumptions• Technical Memorandum• Timeline | TPO/CS |
| 4. Other Items of Importance | All |
| 5. Recap of Action Items & Discussion of Next Steps | Betsy Evans |
| 6. Adjournment | |

CHATTANOOGA INTERAGENCY CONSULTATION COMMITTEE

MEETING MINUTES – December 3, 2015

1. Attendees

A listing of attendees is included in Attachment A.

2. Revocation of 1997 PM_{2.5} Standard Discussion

Ms. Melissa Taylor from the Regional Planning Agency stated that the November 4, 2015 Federal Register notice of the new PM_{2.5} standard triggered this discussion. Ms. Taylor stated that she wanted to confirm with EPA that it was common practice to revoke the previous standards in this situation. Ms. Dianna Myers of EPA stated that it is normal practice for EPA to revoke the previous standard. She said the agency plans to finalize the PM_{2.5} Implementation Rule in March of 2016 and that is when a decision will be made on revocation of the 1997 PM_{2.5} standard. Ms. Taylor then asked EPA what type of TIP amendments the TPO could process without triggering a new Conformity Determination Report from having the new budgets in place. Ms. Myers stated that TIP amendments that involve exempt projects do not have to do a conformity determination and a non-exempt project would have to do conformity where regional emissions analysis would need to be conducted. It was determined that even a new exempt project being added to the TIP as an amendment does not trigger a regional emissions analysis and could move forward in the TPO's current situation. Ms. Myers stated that the Georgia budgets became effective on December 19, 2014 and need to be used in a conformity analysis by December 19, 2016, Ms. Taylor stated a new analysis will be run by June 2016. It was determined that even a TIP amendment that is strictly a financial change to a non-exempt project would still trigger a new regional emissions analysis. The timing of the work for the new regional conformity analysis and the possible revocation of the 1997 standard in March was discussed and Ms. Taylor said that the TPO will still plan to complete all of the work for a new regional emissions analysis even with the possible March revocation date. Ms. Myers stated that if the TPO starts running the model before the revocation date, then the model runs and the conformity process has to be completed. Ms. Taylor stated that it was important when the conformity process is started to make sure the TPO is using that latest available inputs and that the planning assumptions we be reviewed again. There was a discussion about which MOVES model version to use for the new regional emissions analysis and was agreed upon that MOVES2010b would be used. Ms. Taylor gave a brief update of the

scheduling/timeline of the 2014-2017 TIP Amendment, 2017-2020 TIP development process and the biennial 2040 RTP amendment process.

3. New MVEBs

The Motor Vehicle Emissions Budgets item was covered in agenda item #2.

4. Other Items of Importance

Ms. Myers stated that there is a MOVES webinar on December 10, 2015 and information about the webinar can be found on EPA's website.

5. Recap of Action Items & Discussion of Next Steps

There were no action items and Ms. Evans stated that the TPO will go ahead and proceed with processing the exempt TIP amendments on the December Board meeting agenda.

The meeting was adjourned.

IAC - List of Attendees - ATTACHMENT A - December 3, 2015

Last Name	First Name	Organization	Present		Absent
			In Person	Via Phone	
Maragnano	Lisa	CARTA			X
Powell	Annie	CARTA			X
Lark	Bill	Catoosa County Commission Chairman			X
		Catoosa County Public Works Director			X
Colby	Bob	Chattanooga Hamilton County Air Pollution Control Bureau		X	
Frazier	Alan	Chattanooga Hamilton County Air Pollution Control Bureau		X	
Spencer	Sydney	Chattanooga Hamilton County Air Pollution Control Bureau			X
Rennich	Karen	Chattanooga Hamilton County RPA	X		
Taylor	Melissa	Chattanooga Hamilton County TPO	X		
Evans	Betsy	Chattanooga Hamilton County TPO	X		
Ray	Andrew	Chattanooga Hamilton County TPO			X
Grennell	Zane	Chattanooga Hamilton County TPO			X
Mild	Cortney	Chattanooga Hamilton County RPA	X		
Comstock	Kevin	City of Chattanooga			X
Bailey	Blythe	City of Chattanooga			X
Kuyrkendall	Bert	City of Chattanooga			X
Jones	Charlie	N.W. GA Regional Commission		X	
Meadows	Julie	NWGRC		X	
Myers	Dianna	EPA - Environmental Protection Agency - Region 4		X	
Farngalo	Zuri	Environmental Protection Agency - Region 4		X	
Andrews	Clint	FHWA - Federal Highway Administration - Alabama Division			X

Last Name	First Name	Organization	Present		Absent
			In Person	Via Phone	
Harris	David	FHWA - Federal Highway Administration - Alabama Division			X
Davis	Corbin	FHWA - Federal Highway Administration - Tennessee Division			X
Allen	Scott	Federal Highway Administration - Tennessee Division			X
Edwards	Andrew	FHWA - Federal Highway Administration: Georgia Division			X
Jones	Latoya	Federal Highway Administration Georgia Division			X
Day	Ann-Marie	Federal Highway Administration Georgia Division			X
Hibbert	Jennifer	FTA - Federal Transit Administration - Region 4			X
Walker	Ryan	Georgia DOT			X
Kassa	Habte	Georgia DOT			X
Simons	Chris	Georgia DOT (Atkins Consult)			X
Noble	Steve	Georgia DOT (Atkins Consult)			X
Cox	Dave	Georgia DOT			X
Peevy	Phillip	Georgia DOT			X
		Georgia Regional Transportation Authority			X
Quarles	Karen	GDOT Transit			X
Johnston	Jimmy	Georgia Environmental Protection Division - Air Protection Branch			X
Kelly	Jim	Georgia Environmental Protection Division - Air Protection Branch			X
Munsey	Elisabeth	Georgia Environmental Protection Division- Air Protection Branch			X
Grodzinsky	Gil	Georgia Environmental Protection Division - Air Protection Branch	X		

B. Interagency Review of Planning Assumptions Used in Regional Emissions Analysis

On April 5, 2005, the United States (U.S.) Environmental Protection Agency (EPA) designation of the Chattanooga nonattainment area for fine particulate matter (PM_{2.5}) under the 1997 annual PM_{2.5} standard became effective.¹ The nonattainment area includes all of Hamilton County, Tennessee; all of Catoosa and Walker Counties in Georgia; and a portion of Jackson County in Alabama. The CHCNGA TPO boundary includes all of Hamilton County, Tennessee and northern portions of Dade, Walker, and Catoosa Counties in North Georgia. The nonattainment portion of Georgia that is not within the TPO boundary is referred to as the Georgia donut area. Although Jackson County, Alabama is still included in the Chattanooga tri-state nonattainment area, as of July 6, 2010, Jackson County, Alabama has been removed from the regional emissions analysis for the conformity determination.

An initial conformity determination under the 1997 PM_{2.5} annual standard was required by April 5, 2006. The CHCNGA TPO 2030 Long-Range Transportation Plan (RTP) and FY 2006 TIP received a positive conformity determination under the PM_{2.5} standard on March 31, 2006, in accordance with the conformity deadline. Subsequent conformity determinations were made in: February 2007 to reflect RTP and TIP amendments resulting from Enterprise South project revisions, and April 2008 as a result of RTP and TIP amendments needed to reflect new Federal transportation planning provisions and changes to a number of regionally significant projects within the PM_{2.5} nonattainment area.

The 2035 RTP, approved by the U.S. Department of Transportation (DOT), in consultation with the U.S. EPA, on March 21, 2010, served as the subsequent four-year update to the 2030 RTP. The 2035 RTP was amended in March 2012 to reflect a number of modifications to regionally significant transportation projects. The 2040 RTP, approved by the U.S. Department of Transportation (DOT), in consultation with the U.S. EPA, on February 5, 2014, served as the subsequent four-year update to the 2035 RTP. The 2040 RTP was amended in June 2015 to reflect several project changes in and around Enterprise South Industrial Park.

On December 19, 2014 EPA re-designated the Georgia portion (Catoosa and Walker Counties) of the PM_{2.5} nonattainment area to attainment, approved the maintenance plan for this Georgia portion, and found the 2025 motor vehicle emissions

¹ The current Chattanooga nonattainment area designation is based on the 1997 annual PM_{2.5} standard of 15 ug/m³. Note that Chattanooga is in attainment for the 1997 24-hour PM_{2.5} standard of 65 ug/m³. The 1997 PM_{2.5} annual and 24-hour standards were promulgated in April 2005, with conformity required by April 2006. Effective December 18, 2006, the U.S. EPA promulgated a more stringent daily PM_{2.5} standard, reducing it from the current 65 ug/m³ to 35 ug/m³. Designations under the revised standard were finalized by U.S. EPA on October 8, 2009, with a 30-day effective date. The Chattanooga area meets the revised daily PM_{2.5} standard, and is not subject to nonattainment area designation under this standard. In 2012 EPA lowered the annual PM_{2.5} standard from 15 ug/m³ to 12 ug/m³. The entire tri-state Chattanooga area was designated attainment for this standard.

budgets (MVEBs) for this Georgia portion adequate for the purposes of transportation conformity. On November 4, 2015 EPA re-designated the Hamilton County, TN portion of the PM_{2.5} nonattainment area to attainment, approved the maintenance plan for this Tennessee portion, and found the 2025 motor vehicle emissions budgets (MVEBs) for this Tennessee portion adequate for the purposes of transportation conformity. Within 24 months of these dates transportation partners will need to demonstrate conformity to the new PM_{2.5} and NOX MVEBs pursuant to 40CFR 93.104(e).

Below is a detailed listing of the procedures and planning assumptions used for this amendment to the 2040 RTP conformity analysis based on MOVES2010b. The tables included in this document were submitted to the Interagency Consultation Committee (IAC) in accordance with Section 93.105(c) of the Transportation Conformity Rule which requires interagency review of the model(s) and associated methods and assumptions used in the regional emissions analysis. All assumptions apply to the 2040 RTP amendment. These planning assumptions were submitted to the Interagency Consultation Committee (IAC) ahead of their February 2016 meeting.

A.1 SECTION 1: GENERAL METHODS AND ASSUMPTIONS

1. Modeling Methodology:

a. Tennessee (Hamilton County):

- i. Calculate HPMS Adjustment Factors based on 2010 HPMS count data.
- ii. Pre-process travel demand model output for activity-based MOVES inputs, including HPMSVTypeYear, HourVMTFraction, averageSpeedDistribution, and RoadTypeDistribution.
- iii. Prepare remaining MOVES inputs.
- iv. Run MOVES2010b in inventory mode for each of the twelve months of the year;
- v. Estimate annual emissions using the daily emissions output from MOVES.

b. Georgia:

- i. Within TPO travel model (Catoosa County, portion of Walker County):
 - (1) Calculate HPMS Adjustment Factors based on 2010 HPMS count data.
 - (2) Pre-process travel demand model output for activity-based MOVES inputs, including HPMSVTypeYear, HourVMTFraction, averageSpeedDistribution, and RoadTypeDistribution.
 - (3) Prepare remaining MOVES inputs.
 - (4) Run MOVES2010b in inventory mode using April as a dummy month to represent the entire year.
 - (5) Estimate annual emissions using the daily emissions output from MOVES.
- ii. Outside of TPO travel model (donut portion of Walker County):

- (1) Estimate VMT for remaining portion of Walker County donut area outside of TPO travel model domain using GA HPMS traffic count data:
 - (a) Base-year roadway mileage and HPMS average annual traffic count data from GDOT RC/HPMS databases.
 - (b) Traffic count growth trends for each analysis year estimated by HPMS functional class:
 - (i) Growth rates extracted from TPO travel demand model for GA portion of nonattainment area within the travel model.
 - (ii) Growth rates applied to GA portion of nonattainment area outside of travel model.
 - (2) Prepare remaining MOVES inputs.
 - (3) Run MOVES2010b in inventory mode using April as a dummy month to represent the entire year.
 - (4) Estimate annual emissions using the daily emissions output from MOVES.
2. Conformity Tests:
- a. Nonattainment Classification – Basic PM_{2.5}, Annual Standard:
 - i. No-Greater-Than-Base-Year interim emissions test for conformity analysis years before 2025
 - (1) 2002 base year
 - (2) Base-year emissions to be developed as part of conformity analysis as provided for in preamble to the eight-hour ozone and PM_{2.5} Transportation Conformity Rule.² Base-year emissions will be established using the same modeling methodology presented above.
 - ii. Comparison to 2025 MVEBs for conformity analysis years 2025 and later.
3. Conformity Analysis Years: 2010, 2017, 2020, 2025, 2030, 2040.
4. Modeling Start Date: July 2013. This start date is defined by the TPO as the initiation of the first model run for 2040 RTP, begun when all datasets needed for the model run are completed and the updated air quality pre-processing procedures were completed.
5. Interagency Consensus on Planning Assumptions: Ongoing from December 2012-July 2013
- a. HPMS adjustment factors – April 2013
 - b. Modeling methodology – April 2013
 - c. Analysis Years – June 2013
 - d. Less than base year conformity test – June 2013
 - e. 2040 RTP project list and exempt/non-exempt status – June 2013
 - f. MOVES inputs – July 2013

² Federal Register, Vol. 69, No. 126, July 1, 2004, p. 40015, first column.

A.2 SECTION 2: TRAVEL DEMAND MODELING ASSUMPTIONS

1. Validation Year: 2010.
2. Project Listing: Project listings were provided in electronic format (table of project descriptions) to Interagency Consultation Committee for review in May and June 2013:
 - a. Regionally Significant and Federally Funded by Exempt/Non-Exempt Status.
 - b. Regionally Significant and Non-Federally Funded by Exempt/Non-Exempt Status.
3. Updates to 2040 TPO Travel Model Platform:
 - a. Trip estimates updated with the 2011 household travel survey and expanded transit on-board survey.
 - b. Updated highway network with automated capacity equations based on Highway Capacity Manual (HCM) methodology using actual roadway characteristics.
 - c. Added transit components to the entire model stream, with transit network, path building, mode choice, and transit assignment.
 - d. Incorporated a time of day model to estimate peak and off-peak travel.
 - e. Updated SE data: The trend scenario of a new land use model produced the population and employment development pattern for the year 2040. A focus group representing a wide spectrum of the development community provided input to the model assumptions. The future year population and employment growth totals used in the trend land use model scenario were developed based on the projections from Woods & Poole, Tennessee State Data Center and Georgia Office of Planning and Budget. These final growth totals were reviewed by an expert advisory committee consisted of representatives from the Center of Business and Economic Research, University of Tennessee, Knoxville, Chattanooga Area Chamber of Commerce, Hamilton County Health Department, Northwest Georgia Regional Commission, and Ochs Center.
4. Updates to air quality pre-processing procedures:
 - a. The new time of day model was used to estimate the split of VMT by four times of day. This information was then used to adjust the MOVES default VMT distribution over the 24 hours of the day.
 - b. Since the travel model now outputs validated SU (Single Unit) and CU (Combination Unit) trucks in addition to general traffic volumes, this information was used in combination with TDOT/GDOT vehicle classification counts to split VMT by vehicle type.
 - c. A speed-post processing technique was introduced to take advantage of the time of day model and to provide better estimates of speed than is calculated by the travel demand model itself. The process uses Bureau of Public Roads (BPR) volume delay function to calculate the congested travel time by hour. The congested travel time and the link length are used to calculate the congested speed for each of the 24 hours in a day.
5. Transit Planning Assumptions:
 - a. Transit route attributes and run times were based on the actual route schedule provided by CARTA. Additional information on the transit service levels included in the transit network is documented in the Travel Demand Model Documentation, Tech Memo #2, Section 4.
 - b. In the Chattanooga model, the transit fares are modeled as flat fares at the route level based on CARTA's current fare system. The flat fare of 1.5 dollars applies to all fixed bus routes, with the

exception of two downtown shuttle routes. Route 33 and 34 (downtown shuttle routes) are free of charge. The same fare assumptions are used for future years. Additional information regarding transit fare assumptions are found in the Travel Demand Model Documentation, Tech Memo #6, Section 4.

- c. Regarding ridership, model results for system level boarding, route group boarding and route boarding were compared to information from the on-board transit survey and CARTA ridership data and it was concluded that the model was providing valid results. Additional information on this validation process is documented in Travel Demand Model Documentation, Tech Memo #6, Section 8.

A.3 SECTION 3: EMISSIONS MODELING ASSUMPTIONS

1. Emissions Factor Model: MOVES2010b, Database Date: 2012/04/10.
2. MOVES2010b Inputs (Tennessee and Georgia portions).

Table 0.1 General Parameter Inputs in MOVES2010b for Transportation Conformity

MOVES Screen	Input Item	Hamilton County, TN	Catoosa and Walker Counties, GA
Description	Description	User Choice	User Choice
Scale	Domain/Scale	County	County
	Calculation Type	Inventory	Inventory
Time Spans	Time Aggregation Level	Hour	Hour
	Year	2002, 2010, 2017, 2020, 2025, 2030, 2040	2002, 2010, 2017, 2020, 2025, 2030, 2040
	Months	All 12 Months	April Dummy Month
	Days	Weekday and Weekend	Weekday
	Hours	Select All	Select All
Geographic Bounds	Geographic Bounds	Hamilton County, TN	Catoosa County, GA
Vehicles	Vehicles	All Gas and Diesel Combinations; Electric Transit Buses	All Gas and Diesel Combinations; CNG Transit Buses
Road Type	Road Type	Select All	Select All
Pollutants/ Processes	Pollutants/ Processes	PM2.5 with all sub-species; NOx;	PM2.5 with all sub-species; NOx;
General Output	Database Name	Chatt[year]_PM25_TN_rates_out	Chatt[year]_PM25_GA_rates_out
	Units	Select “Grams” and “Miles” and your choice of energy units	Select “Grams” and “Miles” and your choice of energy units
	Activity	No Selections Required	No Selections Required
Output Emissions Detail	Always	Under Time Select “Hour”	Under Time Select “Hour”
	On Road	Select “Source Use Type”	Select “Source Use Type”

Table 0.2 County Data Manager Inputs in MOVES2010b for Transportation Conformity

County Data Manager Inputs	Tab Name	Hamilton County, TN	Catoosa & Walker (TPO Portion) Counties, GA	Walker County, GA Donut Portion
Source (Vehicle) Type Population	sourceType Year	Travel Demand Model VMT * Default Mileage Accumulation Rates from MOVES. Vehicle split uses same method as HPMSVTypeYear input. Apply TPO human population forecasts to grow vehicle population in future years.	Catoosa and Walker County Vehicle Registration Data (2002 Polk) w/MOVES National Default Vehicle Type Ratios. Apply human population forecasts to grow vehicle population in future years.	Walker County Vehicle Registration Data (2002 Polk) w/MOVES National Default Vehicle Type Ratios. Apply human population forecasts to grow vehicle population in future years.
Vehicle Type VMT (by 13 MOVES Vehicle Types)	HPMSVType Year	Hamilton County annual average weekday VMT from TDM. Used month and day VMT fraction to convert to annual VMT. Multiplied by HPMS adjustment factors. Vehicle type ratios from 2008-2010 statewide TN HPMS vehicle type splits and MOVES defaults to get split of cars & light trucks (20&30).	Catoosa County and Walker (TPO portion) County annual average weekday VMT from TDM. Used month and day VMT fraction to convert to annual VMT. Multiplied by HPMS adjustment factors. Vehicle type splits from GA statewide 2008-2010 HPMS and MOVES defaults to get split of cars and light trucks (20&30).	Walker County annual average weekday VMT from 2002 HPMS and VMT growth rates from TDM. VMT proportioned for donut area using model centerline roadway mileage compared to GDOT HPMS mileage for entire county. Used month and day VMT fraction to convert to annual VMT. Vehicle type splits from GA statewide 2008-2010 HPMS and MOVES defaults to get split of cars and light trucks (20&30).
	MonthVMT Fraction	Created from TDOT 2008-2010 “5-YEAR-AVERAGE MONTHLY VARIATION FACTORS, BY DAY OF WEEK” Sheets.	Set to 1. Apply MOVES defaults in post processing step to annualize daily emissions by multiplying by 341.9809.	MOVES National Defaults.

County Data Manager Inputs	Tab Name	Hamilton County, TN	Catoosa & Walker (TPO Portion) Counties, GA	Walker County, GA Donut Portion
	DayVMT Fraction	Created from TDOT 2008-2010 “5-YEAR-AVERAGE MONTHLY VARIATION FACTORS, BY DAY OF WEEK” Sheets.	Set to 1. Apply MOVES defaults in post processing step to annualize daily emissions by multiplying by 341.9809.	MOVES National Defaults.
	HourVMT Fraction	Four time of day periods from TDM with national defaults to split into hours.	Four time of day periods from TDM with national defaults to split into hours.	Four time of day periods from TDM with national defaults to split into hours.
Average Speed Distribution (% of VHT in each 5 mph speed bin)	avgSpeed Distribution	Hamilton County Distribution from TDM and post processing technique to get speeds by 24 hours of day.	Catoosa and Walker (portion)County Distribution from TDM and post processing technique to get speeds by 24 hours of day.	Catoosa and Walker (portion)County Distribution from TDM and post processing technique to get speeds by 24 hours of day.
Road Type Distribution (VMT by 5 MOVES Road Types)	roadType Distribution	Combination of Hamilton County MOVES Road Type Distribution from TDM & Source Type Distribution from TN HPMS Vehicle Type Splits and MOVES Defaults.	Combination of Catoosa and Walker (portion) County MOVES Road Type Distribution from TDM & Source Type Distribution from GA HPMS Vehicle Type Splits and MOVES Defaults.	Combination of Catoosa and Walker (portion) County MOVES Road Type Distribution from TDM & Source Type Distribution from GA HPMS Vehicle Type Splits and MOVES Defaults.
Age Distribution (Vehicle Population by Age of Vehicle)	sourceType Age Distribution	TDOT/UTK prepared age distributions prepared from 2010 registration data.	MOVES National Defaults.	MOVES National Defaults.
Ramp Fraction	RoadType	TDM Results (Urban 4%, Rural 2%)	TDM Results (Urban 4%, Rural 2%)	0% since there are no restricted access facilities in the donut area.
Meteorology Data	ZoneMonth Hour	2007 met data for 12 months of year (NMIM database for Hamilton County)	2007 met data annualized into dummy month (NMIM database for Catoosa and Walker County)	2007 met data annualized into dummy month (NMIM database for Walker County)
Fuel (% of	Fuel Formulation	Hamilton County Fuel for	National Defaults	National Defaults

County Data Manager Inputs	Tab Name	Hamilton County, TN	Catoosa & Walker (TPO Portion) Counties, GA	Walker County, GA Donut Portion
Market Share by Fuel Type)	Fuel Supply	12 months of year from TDEC for 2012 and later; MOVES defaults before 2012	Catoosa and Walker MOVES defaults annualized into dummy month	Catoosa and Walker MOVES defaults annualized into dummy month
Fuel Type and Technology	avft	MOVES National Defaults for all vehicle except transit buses. For transit buses use CARTA information for model years 1990 and later (77% diesel, 17% gasoline paratransit, 6% electric)	MOVES National Defaults.	MOVES National Defaults.
I/M Program	IMCoverage	Hamilton Program from TDEC for 2005 and later; No Program before 2005	No Program	No Program

a TDEC currently is working on locally defined fuel supply and formulations based on fuel surveys for historical years (before 2012). These should be used when they become available. MOVES defaults will be used until then.

3. VMT adjustment factors:

a. Calculated for year 2010:

- i. Reflects Section 93.122(b)(3) of the Transportation Conformity Rule which recommends that HPMS adjustment factors be developed to reconcile travel model estimates of VMT in base year of validation to HPMS estimates for the same period.
- ii. Factors applied to VMT estimates by functional class generated by TPO travel demand model for TN portion and GA portions of TPO travel model domain, separately.

VMT Adjustment Factors – Hamilton County, Tennessee

Functional Class Name	Functional Class Number	2010 Model VMT	2010 HPMS VMT	HPMS Adjustment Factors
Rural Interstate	1	91,032	94,271	1.036
Rural Principal Arterial	2	231,821	202,963	0.876
Rural Minor Arterial	6	87,745	64,380	0.734
Rural Major Collector	7	39,552	48,468	1.225
Rural Minor Collector	8	80,859	66,040	0.817
Rural Local	9	45,602	92,056	2.019
Urban Interstate	11	2,510,653	2,528,579	1.007
Urban Freeway	12	1,366,188	1,195,769	0.875
Urban Other Arterial	14	1,725,532	1,763,175	1.022
Urban Minor Arterial	16	2,222,138	2,217,240	0.998
Urban Collector	17	373,511	394,249	1.056
Urban Local	19	914,605	1,097,883	1.200

VMT Adjustment Factors – Catoosa County, Georgia

Functional Class Name	Functional Class Number	2010 Model VMT	2010 HPMS VMT	HPMS Adjustment Factors
Rural Interstate	1	325,757	459,000	1.409
Rural Principal Arterial	2	18,681	19,000	1.017
Rural Minor Arterial	6	90,663	71,000	0.783
Rural Major Collector	7	85,647	65,000	0.759
Rural Minor Collector	8	54,176	22,000	0.406
Rural Local	9	30,626	90,000	2.939
Urban Interstate	11	618,598	675,000	1.091
Urban Freeway	12	0	0	
Urban Other Arterial	14	29,911	38,000	1.270
Urban Minor Arterial	16	451,412	522,000	1.156
Urban Collector	17	38,611	55,000	1.424
Urban Local	19	165,182	394,000	2.385

VMT Adjustment Factors – TPO portion of Walker County, Georgia

Functional Class Name	Functional Class Number	2010 Model VMT	2010 HPMS VMT	HPMS Adjustment Factors
Rural Interstate	1	0	0	
Rural Principal Arterial	2	88,555	54,626	0.617
Rural Minor Arterial	6	1,085	922	0.850
Rural Major Collector	7	35,494	14,188	0.400
Rural Minor Collector	8	1,465	181	0.124
Rural Local	9	13,734	40,361	2.939
Urban Interstate	11	0	0	
Urban Freeway	12	0	0	
Urban Other Arterial	14	192,062	163,000	0.849
Urban Minor Arterial	16	198,845	160,000	0.805
Urban Collector	17	51,492	49,000	0.952
Urban Local	19	85,672	316,000	3.688

4. Off-Model Emissions Program Calculations:

- a. Not Applicable. No additional credit is taken in the emissions modeling process for off-model programs or projects.

5. TCMs:

- a. Not Applicable. No additional credit is taken in the emissions modeling process for SIP TCMs.