

5. Onroad Mobile Sources

5.1 Introduction

The Maricopa Association of Governments (MAG) prepared the onroad mobile source emission estimates for the 2002 periodic ozone precursor emissions inventory for the Maricopa County Nonattainment Area and for Maricopa County. Onroad mobile source emission estimates have been calculated for ozone (O₃) precursors for the 2002 periodic ozone inventory. These onroad mobile source estimates are for the ozone nonattainment area within Maricopa County and also for Maricopa County as a whole. Emission estimates were developed for both the ozone season and also for 2002 as a whole.

Emission estimates were calculated for the following eight vehicle classes: light duty gas vehicles (LDGV), light duty gas trucks of gross vehicle weight under 6000 pounds (LDGT1/LDGT2) or over 6000 pounds (LDGT3/LDGT4), heavy duty gas vehicles (HDGV), light duty diesel vehicles (LDDV), light duty diesel trucks (LDDT), heavy duty diesel vehicles (HDDV), and motorcycles (MC). Emission factors for these vehicle classes were calculated using MOBILE6.2, the latest version in a series of models developed by the US Environmental Protection Agency (EPA) for the purpose of estimating motor vehicle emission factors. The resulting emission factors were multiplied by the estimates of vehicle miles of travel (VMT) to generate emission estimates.

The main reference sources for preparing the onroad mobile source portion of the inventory were as follows:

- Emission Inventory Requirements for Carbon Monoxide State Implementation Plans, EPA-450/4-91-011, March 1991, (hereinafter referred to as EPA Guidance),
- Technical Guidance on the Use of MOBILE6 for Emission Inventory Preparation, US EPA, January 2002,
- User's Guide to MOBILE6.1 and MOBILE6.2 (Mobile Source Emission Factor Model), EPA420-R-03-010, August 2003, (hereinafter referred to as User's Guide), and
- Procedures for Emission Inventory Preparation Volume IV: Mobile Sources, EPA-450/4-81-026d (Revised), 1992.

5.2 VMT estimation procedure

MAG prepared the 2002 vehicle miles of travel (VMT) estimates for the ozone nonattainment area and Maricopa County. The source of data for these estimates is the 2002 Highway Performance Monitoring System (HPMS) data (see Appendix 5.1) submitted to the US Department of Transportation, Federal Highway Administration (FHWA) by the Arizona Department of Transportation (ADOT). The ADOT contact person for the HPMS VMT estimates is Mark Catchpole (602-712-8596).

Each year, ADOT coordinates the collection of HPMS data, including the annual average daily traffic (AADT) estimates which are utilized to develop HPMS VMT estimates. ADOT provides the AADT for the state highway system routes including interstates, urban freeways, and principal arterials in Maricopa County. AADTs for other non-local facilities are provided by local

jurisdictions. ADOT merges the Maricopa County data with information from other Arizona counties to create the statewide HPMS dataset submitted to FHWA each year.

HPMS contains a number of data elements which describe roadway characteristics and performance for every non-local roadway in Arizona. All non-local roadways have been divided into sections which are 0.3 to 10 miles in length, in accordance with HPMS criteria. These sections are called HPMS universe sections. HPMS contains additional data elements which provide more detailed information on a randomly-selected set of sample sections. The VMT estimates which ADOT submits to FHWA each year are generated from HPMS universe data for all interstates, urban freeways, and principal arterials. Sample section data are expanded to estimate VMT on all other non-local systems.

VMT on local streets in the urbanized portion of Maricopa County is estimated using traffic counts collected on 50 randomly-selected local streets in June-July of 1994. These counts resulted in an AADT of 587 for local roads in the urbanized area. To calculate VMT, this AADT was applied to local road mileage in 1994 obtained from the Maricopa County street centerline coverage. In 1994, an AADT of 150 was assumed for local roads which are in the “donut” area. The “donut” area is an HPMS term referring specifically to the area inside the PM₁₀ nonattainment area, but outside the Phoenix urbanized area boundary. Since 1994, the AADTs on local streets have been increased annually on the basis of the rate of population growth in the Maricopa County population; the mileage on local streets is updated annually by the local jurisdictions in Maricopa County. VMT for the ozone nonattainment area, based on the 2002 HPMS data ADOT submitted to FHWA, is summarized by area type and facility type in Table 5.2–1.

Table 5.2–1. 2002 HPMS VMT by area type and facility type for the ozone nonattainment area (annual average daily traffic).

Facility type:	Area Type					Total
	1	2	3	4	5	
Interstate / Freeway	1,129,051	9,046,583	6,240,489	4,525,653	2,678,544	23,620,320
Principal Arterial / Minor Arterial	1,087,462	8,834,531	9,795,953	6,923,412	2,670,291	29,311,650
Collector	1,046,993	2,727,290	1,694,159	872,616	955,062	7,296,120
Local	195,247	1,991,136	2,564,545	1,689,510	855,772	7,296,210
Totals:	3,458,753	22,599,539	20,295,146	14,011,191	7,159,670	67,524,300

Notes:

1. Area Type = f(DENSITY of a planning district) where:
 DENSITY = (Population + 2 × Employment) / Area
 For Area Type 1, DENSITY = 20,001+ (Central Business District)
 For Area Type 2, DENSITY = 10,001–20,000 (Outlying Central Business District)
 For Area Type 3, DENSITY = 5,001–10,000 (Mixed Urban)
 For Area Type 4, DENSITY = 1,001–5,000 (Suburban)
 For Area Type 5, DENSITY = 0–1,000 (Rural)
2. Total VMT by facility type is extracted from the appropriate HPMS templates, with the urbanized area VMT reduced by 1 percent and the donut area VMT reduced by 28 percent.
3. VMT is split up into Area Types using data from MAG 2002 EMME/2 travel demand modeling results.
4. In some cases, the total VMT estimates may differ slightly from the sum of the component VMT estimates due to rounding. This difference will not exceed one vehicle mile of travel.

The 2002 HPMS System Length and Daily Vehicle Travel for individual urbanized areas (in Appendix 5.1) was submitted to FHWA by ADOT in October 2003. This table reported a 2002 average daily VMT (AADT) for the Phoenix urbanized area (#33) of 63.338 million. In comparison, the 2002 urbanized area VMT for the ozone nonattainment area used in the periodic emissions inventory is 62.705 million. The one percent difference between these totals is attributable to small sections of the Phoenix urbanized area (i.e. Apache Junction) which are not located in the ozone nonattainment area and Maricopa County. The HPMS System Length and Daily Vehicle Travel, donut area data for individual NAAQS nonattainment areas, (in Appendix 5.1), reported a 2002 VMT for the “donut” area (#33) of 6.694 million. The factors (i.e. 99 percent for the urbanized area and 72 percent for the donut area) used to determine the allocation of HPMS VMT to the ozone nonattainment area were derived from the report, “Maricopa Association of Governments Highway Performance Monitoring System Update Study”, January 1995. These factors were also used to derive VMT for the CO tracking area in Chapter Three of the “MAG 1999 Serious Area Carbon Monoxide Plan for the Maricopa County Nonattainment Area”, June 1999. The total 2002 daily VMT for the urbanized and “donut” areas in the ozone nonattainment area is 67.524 million, as shown in Table 5.2–1. It is important to note that the 2002 HPMS daily VMT for the ozone nonattainment area is within one percent of the 2002 VMT estimated by the MAG EMME/2 travel demand models for the same domain (after conversion of EMME/2 estimates from average weekday traffic to annual average daily traffic).

The distribution of VMT by facility type for the ozone nonattainment area in Table 5.2–1 was derived from the 2002 HPMS data, while the distribution by area type was derived from a MAG EMME/2 travel demand model run for 2002. The output of this traffic assignment was evaluated using GIS to obtain VMT by area type and facility type for the Phoenix urbanized and “donut” areas. The area type distributions from the EMME/2 assignment were applied to the 2002 HPMS VMT estimates by facility type for the urbanized and “donut” areas to create Table 5.2–1.

VMT estimates for all of Maricopa County were also developed by ADOT. The VMT division by area type for all of Maricopa County were developed by applying all additional VMT for each facility type to the Area Type 5 (rural) category, since all VMT outside of the ozone nonattainment area but inside Maricopa County is expected to be in a rural setting. The total VMT estimated for Maricopa County is 73.579 million miles per day for an annual average day. The VMT estimates for Maricopa County are shown in Table 5.2–2.

Table 5.2–2. 2002 HPMS VMT by area type and facility type for Maricopa County (annual average daily traffic).

Facility type:	Area Type					Total
	1	2	3	4	5	
Interstate / Freeway	1,129,051	9,046,583	6,240,489	4,525,653	5,662,224	26,604,000
Principal Arterial / Minor Arterial	1,087,462	8,834,531	9,795,953	6,923,412	3,738,642	30,380,000
Collector	1,046,993	2,727,290	1,694,159	872,616	2,390,942	8,732,000
Local	195,247	1,991,136	2,564,545	1,689,510	1,422,562	7,863,000
Totals:	3,458,753	22,599,540	20,295,146	14,011,191	13,214,370	73,579,000

Notes:

1. For the definition of “Area Type”, see Table 5.2–1, Note 1.
2. VMT is split up into Area Types using data from MAG 2002 EMME/2 travel demand modeling results. All VMT outside of the HPMS urbanized and donut areas were applied to Area Type 5.
3. In some cases, the total VMT estimates may differ slightly from the sum of the component VMT estimates due to rounding. This difference will not exceed one vehicle mile of travel.

Although HPMS reports vehicle mix data for urban and rural areas of Arizona, there are insufficient classification stations in the Phoenix urbanized area to justify use of this information in calculating VMT by vehicle class. In addition, the HPMS vehicle class data do not discriminate between gas and diesel vehicles. Therefore, MOBILE6.2 model defaults, representing the fraction of total VMT for each vehicle class, were applied to VMT estimates for each facility type and area type.

5.3 Speed estimation procedure

MAG prepared the average daily speeds for the onroad mobile sources portion of the 2002 periodic ozone emissions inventory. The average daily speeds were developed from several sources representing the latest planning assumptions for 2002.

For the Interstate/Freeway category and for the Principal/Minor Arterial category, the speeds were developed using data in the February 11, 2004 draft report 2002-2003 MAG Regional Travel Time & Travel Speed Study. This report contained data for the functional classifications “HOV”, “Freeway”, “Expressway”, “6 Leg Arterial”, and “Major Arterial”. Speeds for the first three categories were combined through a weighted average to develop the average speed for the Interstate/Freeway category used in the Periodic Inventory. Similarly, the two arterial categories contained in the speed study were combined through a weighted averaging to obtain a Principal Arterial/Minor Arterial category speed. In both of these categories, speeds were unique by area type.

The third facility type included in the periodic inventory is collectors. To develop speed estimates for this facility type, speeds were extracted from the latest 2002 travel demand model run created using the EMME/2 software. In the EMME/2 runs performed by MAG, some traffic links that are classified as “locals” would actually be classified as “collectors” by HPMS. The EMME/2 runs also contain artificial links that are categorized as locals. Since the HPMS collector category includes some EMME/2 collector links and some EMME/2 locals, the EMME/2 speeds for locals and collectors were averaged and the result was used for the HPMS category of collectors. Like the speeds for the Interstate/Freeway and Principal/Minor Arterials categories, the speeds for Collectors were calculated separately for each of the five area types.

The fourth of the HPMS facility types is local roadways. The MOBILE6.2 model assumes a set speed of 12.9 miles per hour for local roadways. This speed was incorporated into the current analysis for all local roadways, regardless of area type.

Table 5.3-1. Average daily speeds (mph) for the 2002 periodic emissions inventory.

Facility type:	Area Type *				
	1	2	3	4	5
Interstate / Freeway	59.7	60.3	63.2	64.8	64.2
Principal Arterial / Minor Arterial	30.3	34.4	36.1	39.0	42.6
Collector	18.2	19.1	24.4	24.7	28.2
Local	12.9	12.9	12.9	12.9	12.9

* For the definition of “Area Type”, see Table 5.2-1, Note 1.

5.4 Monthly VMT factors

In the development of annual emissions totals for this inventory, emission factor estimates were estimated independently for each month, with month-specific meteorological and fuel data. Since average daily VMT varies by month, and the number of days in each month varies, these monthly average emission factors were weighted to more appropriately represent an annual average emission factor. Similarly, the conversion of annual average day traffic to the three months of the peak ozone season utilized the monthly VMT factors listed below.

Average daily VMT estimate factors in Table 5.4–1 were developed from the 1998 MAG Regional Congestion Study and the monthly factors are as follows:

Table 5.4–1. Average daily VMT adjustment factors by month.

Month	Avg daily VMT estimate factor	Month	Avg daily VMT estimate factor
January	0.98	July	0.94
February	1.03	August	0.96
March	1.03	September	0.99
April	1.03	October	1.02
May	0.99	November	1.02
June	0.98	December	1.04

These factors indicate, as an example, that an average day in February has three percent more traffic than an average month while an average day in June has two percent less traffic than average. Separately, the different number of days in a month will effect the weighting of monthly emission factors to an annual average. For instance, if each month had the same number of days, each monthly emission factor would be equally weighted by 1/12 (0.0833). Since each month does not have the same number of days, the monthly emission factors are weighted accordingly, with January being weighted 31/365 (0.0849), February being weighted 28/365 (0.0767), etc. Combining the two sets of adjustments, the February emission factors would be weighted by 1.03×0.0767 in the development of the annual emission factors.

These weightings are applied by the FORTRAN program “NEIProgram”, which was created by MAG. NEIProgram reads in the individual MOBILE6.2 output files for all twelve months and for the I/M versus non-I/M scenarios. NEIProgram weighs those 24 sets of MOBILE6.2 output files to a single set of annual average emission factors. The complete source code for NEIProgram may be found in Appendix 5.6.

The same monthly factors were used to convert the annual average daily traffic estimates from the HPMS system to reflect an average day during the peak ozone season. The peak ozone season reflects the three consecutive months when peak ozone concentrations occur. For consistency with the 1999 periodic ozone precursors inventory, the three consecutive months selected were July through September, 2002, in accordance with EPA guidance. Averaging the monthly factors for July through September results in a factor of 0.96.

Table 5.4-2. Average daily VMT during 2002 ozone season for the ozone nonattainment area (July–September 2002).

Facility type:	Area Type					Total
	1	2	3	4	5	
Interstate / Freeway	1,083,889	8,684,720	5,990,869	4,344,627	2,571,402	22,675,507
Principal Arterial / Minor Arterial	1,043,964	8,481,150	9,404,115	6,646,476	2,563,479	28,139,183
Collector	1,005,113	2,618,198	1,626,393	837,711	916,860	7,004,275
Local	187,437	1,911,491	2,461,963	1,621,930	821,541	7,004,362
Totals:	3,320,403	21,695,559	19,483,340	13,450,744	6,873,282	64,823,327

Notes:

1. For the definition of “Area Type”, see Table 5.2-1, Note 1.
2. In some cases, the total VMT estimates may differ slightly from the sum of the component VMT estimates due to rounding. This difference will not exceed one vehicle mile of travel.

Table 5.4-3. Average daily VMT during 2002 ozone season for Maricopa County (July–September 2002).

Facility type:	Area Type					Total
	1	2	3	4	5	
Interstate / Freeway	1,083,889	8,684,720	5,990,869	4,344,627	5,435,735	25,539,840
Principal Arterial / Minor Arterial	1,043,964	8,481,150	9,404,115	6,646,476	3,589,096	29,164,801
Collector	1,005,113	2,618,198	1,626,393	837,711	2,295,304	8,382,719
Local	187,437	1,911,491	2,461,963	1,621,930	1,365,660	7,548,481
Totals:	3,320,403	21,695,559	19,483,340	13,450,744	12,685,795	70,635,841

Notes:

1. For the definition of “Area Type”, see Table 5.2-1, Note 1.
2. In some cases, the total VMT estimates may differ slightly from the sum of the component VMT estimates due to rounding. This difference will not exceed one vehicle mile of travel.

5.5 Emission factor estimation procedure

5.5.1 Emission factor model

Volatile organic compounds (VOCs), oxides of nitrogen (NO_x) and carbon monoxide (CO) vehicle emission factors were calculated using MOBILE6.2. MOBILE6.2 is the latest version in a series of models developed by the US EPA for the purpose of estimating motor vehicle emission factors. The resulting emission factors were combined with vehicle miles of travel (VMT) estimates to produce total emission estimates for onroad vehicles. The MOBILE6.2 runs were executed by the Maricopa Association of Governments. The contact person for the MOBILE6.2 emission estimates is Roger Roy (602-254-6300).

For the ozone precursor season analysis, two MOBILE6.2 runs were executed for a typical day (24-hour period) during the three-month period of July through September. For the annual emissions estimates, two MOBILE6.2 runs were executed for each month of the year using month specific fuel and temperature data, reflecting vehicles registered locally (subject to the I/M program) and those not registered locally (not participating in the I/M program).

The emission factors estimated with these runs were combined to reflect the actual proportions of vehicles subject to the specified levels of inspection. The term “I/M vehicles” denotes vehicles which are required to undergo an emission test and/or inspection under the Arizona Vehicle Inspection/Maintenance Program. It is important to note that participation in the I/M program is required for all vehicles *registered* in the nonattainment area, with the exception of

certain model year and vehicle classes. However, it is assumed that of the vehicles which are of an age and type subject to an I/M program, only 91.7 percent of the vehicles *operating* within the nonattainment area participate in the I/M program. The remaining 8.3 percent do not participate in the program. These percentages reflect the control measures “Tougher Registration Enforcement” and “Expansion of Area A Boundaries”, described in the Revised MAG 1999 Serious Area Carbon Monoxide Plan for the Maricopa County Nonattainment Area, MAG, March 2001. In the absence of any additional data, this percentage split is assumed to apply directly to VMT as well. Refer to Appendix 5.2 for portions of the actual input and output files and a spreadsheet showing the emission factor calculations.

5.5.2 Development of model inputs

The inputs to MOBILE6.2 are grouped into three categories: Header inputs, run inputs, and scenario inputs. The input values used in the MOBILE6.2 runs are specified and explained below. Humidity was not used as an input to the monthly runs that were used to create an annual average emission estimate. After reviewing the MOBILE6.2 guidance on the use of local humidity data (see page 7 of <http://www.epa.gov/otaq/models/mobile6/m6techgd.pdf>), it does not appear that inputting specific humidity values would be appropriate for the development of an annual average emissions inventory of this type. However, humidity estimates were used for the ozone season analysis, in accordance with the aforementioned MOBILE6.2 guidance.

Header Section

1. **MOBILE6 INPUT FILE:** indicates that the MOBILE6.2 input file is a regular command file rather than a batch file.

Run Data Section

1. **NO REFUELING:** indicates that refueling emissions are excluded from the MOBILE6.2 outputs. Refueling emissions are included in the Area Sources chapter of the 2002 inventory.
2. **I/M PROGRAM: 1 1977 2050 1 T/O LOADED IDLE** indicates the program start and end dates, frequency of testing, and test type. There are five components of the I/M program modeled; a loaded idle test for heavy duty gasoline vehicles (shown in the example in Appendix 5.2), a transient idle test (I/M240 modeled as a surrogate for the I/M147 test) for light duty cars and trucks through model year 1995, a loaded idle test for light duty cars and trucks of model years 1967 to 1980, an on-board diagnostic (OBD) exhaust test for model year 1996 and newer vehicles, and an OBD evaporative test for the same vehicles. The remaining four occurrences of this command are as follows:

I/M PROGRAM: 2 1977 2050 2 T/O IM240 - relating to the transient idle I/M240 program modeled as a surrogate for the I/M147 program.

I/M PROGRAM: 3 1977 2050 1 T/O LOADED IDLE - relating to the loaded idle program for model year 1967-1980 light duty cars and trucks.

I/M PROGRAM: 4 2001 2050 2 T/O OBD I/M - relating to the exhaust portion of the OBD test.

I/M PROGRAM: 5 2001 2050 2 T/O EVAP OBD & GC - relating to the evaporative and gas cap portion of the OBD test.

3. **I/M MODEL YEARS: 1 1967 2050** indicates the first and last model years affected by the given component of the I/M program. The inputs shown above indicate that model years 1967 and newer are tested by component 1 of the I/M program. The remaining four occurrences of this command are as follows:

I/M MODEL YEARS: 2 1981 1995 - relating to the transient idle I/M240 program modeled as a surrogate for the I/M147 program.

I/M MODEL YEARS: 3 1967 1980 - relating to the loaded idle program for model year 1967-1980 light duty cars and trucks.

I/M MODEL YEARS: 4 1996 2050 - relating to the exhaust portion of the OBD test.

I/M MODEL YEARS: 5 1996 2050 - relating to the evaporative and gas cap portion of the OBD test.

4. **I/M VEHICLES: 1 11111 2222222 2** indicates that for the first component of the I/M program (1), the five vehicle categories LDGV, LDGT1, LDGT2, LDGT3, and LDGT4 are not subject to this portion of the I/M program (indicated by “1”) while HDGV2B, HDGV3, HDGV4, HDGV5, HDGV6, HDGV7, HDGV8A, HDGV8B, and gasoline buses are covered (indicated by “2”). The remaining four occurrences of this command are as follows:

I/M VEHICLES: 2 22222 1111111 1 indicates that the opposite vehicle classes are subject to the transient idle I/M240 program modeled as a surrogate for the I/M147 program. This selection of vehicle classes is also applied to the remaining three portions of the I/M program.

5. **I/M STRINGENCY: 1 28.0** indicates that the initial test failure rate for pre-1981 LDGVs and pre-1984 LDGTs is 28.0 percent. This stringency rate is also applied to the remaining portions of the I/M program.
6. **I/M COMPLIANCE: 1 97.0** indicates that the fraction of the total vehicle fleet subject to the I/M program that passes the I/M test or receives a waiver is 97.0 percent. This compliance rate is also applied to the remaining portion of the I/M program.
7. **I/M WAIVER RATES: 1 1.3 1.0** indicates that the fraction of vehicles that fail the I/M program is 1.3 for pre-1981 model years and 1.0 percent for 1981 and later model years. These waiver rates are also applied to the remaining portion of the I/M program.

8. **I/M GRACE PERIOD: 1 5** indicates that vehicles less than 5 years old are exempted from the I/M program. This exemption is identical for all portions of the I/M program.
9. **I/M CUTPOINTS: 2 CUTcmp02.d** indicates that for the ozone peak season analysis, MOBILE6.2 reads the external data file "CUTcmp02.d" for the I/M cutpoint values for HC, CO, and NO_x. There are 25 values for each vehicle class and pollutant, for the most recent 25 model years, starting with the youngest vehicle. This data is only input for the I/M240 program. For the monthly MOBILE6.2 runs performed to develop the annual ozone precursor emissions estimates, the file CUTcmp02.d was used for the January through September 2002 analyses and CUTcmp03.d was used for October through December.
10. **ANTI-TAMP PROGRAM: 87 75 80 22222 222222222 2 11 097. 22111222** indicates the nature of the anti-tampering program. Specifically, this portion of the anti-tampering program began in 1987 and covers model year vehicles 1975 to 1980. Vehicle classes subject to the inspection (indicated by a "2") include LDGV, LDGT1, LDGT2, LDGT3, LDGT4, HDGV2B, HDGV3, HDGV4, HDGV5, HDGV6, HDGV7, HDGV8A, HDGV8B, and gasoline powered buses. The test is performed annually. The test has a 97 percent compliance rate. The parameters tested include air pump disablement, catalyst removal, evaporative system disablement, PCV system disablement, and missing gas cap. The parameters not tested are fuel inlet restrictor disablement, tailpipe lead deposit test, and EGR disablement. A second data line indicates that the same test is also performed on model year 1981 to 1995 vehicles, but with the LDGV, LDGT1, LDGT2, LDGT3, and LDGT4 classes omitted because those vehicles are subject to the transient I/M or OBD test.
11. **REG DIST: 02reg02.d** indicates that for the ozone peak season analysis, vehicle registration distributions by age for the 16 composite vehicle types are read by MOBILE6.2 from an external data file, called 02reg02.d. The raw data upon which the registration distributions and diesel fractions are based may be found in Appendix 5.3. The file 02reg02.d was used for the months January through September, 2002. The file 02reg03.d was used for the remaining months of October 2002 through December 2002 because those analyses are closer to a January 2003 scenario than a July 2002 scenario.
12. **DIESEL FRACTIONS:** indicates the user-supplied diesel sales fractions. This input is followed by 350 fractional values representing the fraction of the 14 vehicle classes internally examined by MOBILE6.2 and 25 most recent model years that are diesel vehicles. As an example, the first value, 0.0050, indicates that for the most recent model year of light duty vehicles, 0.5 percent of the vehicles sold are diesel.

Scenario Section

1. **SCENARIO RECORD:** Allows the user to enter a name to identify the scenario being run.
2. **CALENDAR YEAR: 2002** was input because the applicable three-month period for the ozone season inventory is July through September of 2002. To be consistent with the

User's Guide, the calendar year 2002 was chosen to model conditions representative of the applicable period. For the annual emission estimates, the calendar year 2002 was chosen for the months January through September while for the months of October through December, the calendar year 2003 was chosen because a January 2003 scenario more closely matches those months than a January 2002 scenario.

3. **EVALUATION MONTH: 7** indicates that the month to be modeled for the peak ozone season inventory is July. For the annual emissions estimates, the months April through September were run with this setting while the remaining months were processed with the evaluation month set to January. January and July are the only settings allowed for the evaluation month.
4. **ALTITUDE:1** indicates the geographic area modeled was low altitude.
5. **MIN/MAX TEMPERATURE: 80.0 104.** provides the model with the daily minimum and maximum temperatures for the peak ozone season day modeled. The temperatures used are consistent with those modeled for the previous ozone precursor periodic inventories. For the monthly analyses used to estimate annual emissions, temperatures were derived from the appropriate Sky Harbor Airport Local Climatological Data (LCD) reports. The raw meteorological data may be found in Appendix 5.4.
6. **AVERAGE SPEED: various speeds analyzed** indicates to MOBILE6.2 the average speed to be modeled for each facility type and area type combination. All facility and area type combinations with unique speeds will be modeled in this manner.
7. **VMT BY FACILITY: allfwy.def** indicates to MOBILE6.2 that the external file allfwy.def is to be referenced for the ratio of VMT by hour by facility type. The file allfwy indicates that all VMT is occurring on the MOBILE6.2 facility type freeways for use in developing the emission factors for the periodic inventory functional classifications Interstates/Freeways/Expressways. Similarly, the external file allart.def is called when estimating the emission factors for the arterials or collectors, and allloc.def is called when estimating the emission factors for the periodic inventory category locals.
8. **FUEL RVP: 6.6** Indicates that the average Reid Vapor Pressure of the gasoline sold during this time period is 6.6 pounds per square inch. This estimate is based upon raw gasoline data provided by the Arizona Department of Weights and Measures. Specifically, this value represents the average RVP of 192 samples collected from July through September of 2002. For the annual emissions estimates, monthly RVP estimates were derived from the Arizona Department of Weights and Measures data table for use in the monthly MOBILE6.2 analyses incorporated into this analysis. Monthly fuel qualities, including RVP, sulfur content, and ethanol content, are summarized in Appendix 5.7.

9. **FUEL PROGRAM: 4** Indicates that the model is to be run with user-supplied gasoline sulfur levels. The following four lines include 32 numbers, the first 16 listing the average gasoline sulfur value in parts per million for the years 2000 through 2015 and the second 16 indicate the maximum gasoline sulfur content vehicles of model year 2000 through 2015 will be exposed. For the purposes of this analysis, the gasoline data from the time period of November and December 2002 was examined and the average sampled sulfur values during that time period were entered for all time periods. Similarly, the gasoline data for all of 2002 was examined and the maximum sulfur value during that time period was entered for each model year of 2000 through 2015. Those values were 78.1 for average sulfur content and 338.0 ppm for a maximum sulfur content. For the monthly MOBILE6.2 analyses incorporated into this analysis, the average monthly sulfur content from the Arizona Department of Weights and Measures data table were used for the average sulfur value while the 338.0 ppm estimate was used for each month as the maximum sulfur content.

10. **OXYGENATED FUELS: 1.000 0.000 0.019 0.000 1** Indicates that the 100 percent of the gasoline sold during the ozone season modeled used MTBE as an oxygenate and 0 percent of the gasoline used ethanol as an oxygenate. The average MTBE content was 1.9 percent by weight and the average ethanol content was 0.0 percent by weight. The number “1” indicates that no RVP waiver has been granted to allow for the “splash” blending of ethanol oxygenates. For the monthly MOBILE6.2 analyses incorporated into this analysis, the average monthly oxygenate content from the Arizona Department of Weights and Measures data table were used, with the exception of January through March 2003, a time period during which no oxygenate data were available. For those months, an average of the months November and December were used.

5.5.3 *Model outputs*

MOBILE6.2 was executed with the inputs described above to obtain composite emission factors in grams per mile (g/mi) for VOC, NO_x, and CO. These values were obtained for the eight vehicle classes described in section 5.1 for the various speeds as described in item six of the **Scenario Section**, described on the preceding page. The emission factors generated for 2002 are presented in the following section. Representative output runs are contained in Appendix 5.2. These values were subsequently used in developing emission estimates.

5.5.4 *Summary of emission factors*

Refer to Appendix 5.2 for the emission factors developed for VOC, NO_x, and CO for each vehicle class, facility, and area type.

5.5.5 Emission estimates

MOBILE6.2 was used to generate onroad emission factors for vehicle class, facility, and area type. Daily VMT (DVMT) for the ozone season (Table 5.4–2 and 5.4–3) or for an annual average day (Table 5.2–1 and 5.2–2) was then multiplied by the VMT mix by vehicle class and the appropriate ozone precursor emission factor (Appendix 5.2) to estimate emissions on a kilogram per day (kg/day) basis. VMT mix refers to the fraction of total onroad vehicle miles of travel from a particular vehicle type. For example, since the EPA MOBILE6.2 model estimates that 45.1 percent of onroad VMT was from light duty gasoline vehicles, the VMT Mix value for LDGVs is 0.451. An example calculation for VOC emissions is given below, reflecting light duty gasoline vehicles on interstates, freeways, and expressways in area type 1 for the summer ozone season (see Table 5.5–1):

$$\begin{aligned}
 \text{VOC emissions} &= \text{DMVT} \times \text{VMT mix} \times \text{VOC emission factor} \div \text{unit conversion factor} \\
 (\text{kg/day}) & & & (\text{g/mi}) & & (\text{g/kg}) \\
 &= 1,083,889 \times 0.451 \times 0.976 \div 1,000 \\
 &= 477 \text{ kg VOC/day}
 \end{aligned}$$

$$\begin{aligned}
 \text{VOC emissions} &= \text{VOC emissions} \div \text{unit conversion factor} \\
 (\text{lb/day}) & (\text{kg/day}) & (\text{kg/lb}) \\
 &= 477 \text{ kg} \div 0.4536 \\
 &= 1,052 \text{ lb VOC/day}
 \end{aligned}$$

Tables 5.5–1 through 5.5–12 show daily VMT data, associated speed estimates, MOBILE6.2 emission factors, and the calculated VOC, NO_x, and CO emissions for each vehicle class, facility, and area type for the nonattainment area or Maricopa County and for the peak ozone season or annual average day.

Table 5.5–1. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY		1	59.7	0.976	1,083,889	1,051.9	477.1
	LDGV	2	60.3	0.975	8,684,720	8,418.7	3,818.7
	with VMT	3	63.2	0.974	5,990,869	5,801.4	2,631.5
	mix of	4	64.8	0.974	4,344,627	4,207.2	1,908.4
	45.1%	5	64.2	0.974	2,571,402	2,490.1	1,129.5
		1	59.7	1.142	1,083,889	770.1	349.3
	LDGT1	2	60.3	1.139	8,684,720	6,153.5	2,791.2
	with VMT	3	63.2	1.138	5,990,869	4,240.7	1,923.6
	mix of	4	64.8	1.138	4,344,627	3,075.4	1,395.0
	28.2%	5	64.2	1.138	2,571,402	1,820.2	825.6
		1	59.7	1.379	1,083,889	367.6	166.7
	LDGT2	2	60.3	1.376	8,684,720	2,938.8	1,333.0
	with VMT	3	63.2	1.373	5,990,869	2,024.2	918.2
	mix of	4	64.8	1.373	4,344,627	1,467.9	665.9
	11.2%	5	64.2	1.373	2,571,402	868.8	394.1
		1	59.7	0.920	1,083,889	78.2	35.5
	HDGV	2	60.3	0.919	8,684,720	626.3	284.1
	with VMT	3	63.2	0.919	5,990,869	432.0	195.9
	mix of	4	64.8	0.919	4,344,627	313.3	142.1
	3.6%	5	64.2	0.919	2,571,402	185.4	84.1
		1	59.7	0.393	1,083,889	2.1	0.9
	LDDV	2	60.3	0.393	8,684,720	16.6	7.5
	with VMT	3	63.2	0.393	5,990,869	11.4	5.2
	mix of	4	64.8	0.393	4,344,627	8.3	3.8
	0.2%	5	64.2	0.393	2,571,402	4.9	2.2
	1	59.7	0.267	1,083,889	13.8	6.3	
LDDT	2	60.3	0.267	8,684,720	110.4	50.1	
with VMT	3	63.2	0.267	5,990,869	76.2	34.5	
mix of	4	64.8	0.267	4,344,627	55.2	25.1	
2.2%	5	64.2	0.267	2,571,402	32.7	14.8	
	1	59.7	0.396	1,083,889	86.0	39.0	
HDDV	2	60.3	0.396	8,684,720	689.1	312.6	
with VMT	3	63.2	0.396	5,990,869	475.4	215.6	
mix of	4	64.8	0.396	4,344,627	344.7	156.4	
9.1%	5	64.2	0.396	2,571,402	204.0	92.6	
	1	59.7	2.710	1,083,889	33.0	15.0	
MC	2	60.3	2.750	8,684,720	268.5	121.8	
with VMT	3	63.2	2.780	5,990,869	187.2	84.9	
mix of	4	64.8	2.780	4,344,627	135.8	61.6	
0.5%	5	64.2	2.780	2,571,402	80.4	36.5	

Table 5.5–1. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.111	1,043,964	1,152.3	522.7
PRINCIPAL	LDGV	2	34.4	1.071	8,481,150	9,024.2	4,093.4
ARTERIALS	with VMT	3	36.1	1.059	9,404,115	9,901.2	4,491.2
and	mix of	4	39.0	1.045	6,646,476	6,902.5	3,131.0
MINOR	45.1%	5	42.6	1.028	2,563,479	2,620.4	1,188.6
ARTERIALS		1	30.3	1.325	1,043,964	860.4	390.3
	LDGT1	2	34.4	1.275	8,481,150	6,724.5	3,050.2
	with VMT	3	36.1	1.259	9,404,115	7,366.6	3,341.5
	mix of	4	39.0	1.239	6,646,476	5,122.4	2,323.5
	28.2%	5	42.6	1.216	2,563,479	1,939.6	879.8
		1	30.3	1.615	1,043,964	414.8	188.1
	LDGT2	2	34.4	1.551	8,481,150	3,235.7	1,467.7
	with VMT	3	36.1	1.533	9,404,115	3,545.4	1,608.2
	mix of	4	39.0	1.508	6,646,476	2,465.9	1,118.5
	11.2%	5	42.6	1.479	2,563,479	932.6	423.0
		1	30.3	1.318	1,043,964	108.0	49.0
	HDGV	2	34.4	1.199	8,481,150	797.8	361.9
	with VMT	3	36.1	1.158	9,404,115	854.9	387.8
	mix of	4	39.0	1.100	6,646,476	573.7	260.2
	3.6%	5	42.6	1.042	2,563,479	209.7	95.1
		1	30.3	0.499	1,043,964	2.5	1.1
	LDDV	2	34.4	0.468	8,481,150	19.2	8.7
	with VMT	3	36.1	0.457	9,404,115	20.8	9.5
	mix of	4	39.0	0.440	6,646,476	14.2	6.4
	0.2%	5	42.6	0.424	2,563,479	5.3	2.4
		1	30.3	0.356	1,043,964	17.7	8.0
	LDDT	2	34.4	0.330	8,481,150	133.3	60.4
	with VMT	3	36.1	0.320	9,404,115	143.3	65.0
	mix of	4	39.0	0.307	6,646,476	97.2	44.1
	2.2%	5	42.6	0.293	2,563,479	35.8	16.2
		1	30.3	0.603	1,043,964	126.1	57.2
	HDDV	2	34.4	0.541	8,481,150	919.4	417.0
	with VMT	3	36.1	0.520	9,404,115	979.9	444.5
	mix of	4	39.0	0.488	6,646,476	649.9	294.8
	9.1%	5	42.6	0.456	2,563,479	234.2	106.2
		1	30.3	2.450	1,043,964	28.8	13.0
	MC	2	34.4	2.330	8,481,150	222.2	100.8
	with VMT	3	36.1	2.290	9,404,115	242.1	109.8
	mix of	4	39.0	2.240	6,646,476	167.4	75.9
	0.5%	5	42.6	2.190	2,563,479	63.1	28.6

Table 5.5–1. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.322	1,005,113	1,321.0	599.2
	LDGV	2	19.1	1.298	2,618,198	3,377.6	1,532.1
	with VMT	3	24.4	1.187	1,626,393	1,918.6	870.3
	mix of	4	24.7	1.182	837,711	984.0	446.3
	45.1%	5	28.2	1.134	916,860	1,033.4	468.8
		1	18.2	1.582	1,005,113	989.4	448.8
	LDGT1	2	19.1	1.549	2,618,198	2,522.5	1,144.2
	with VMT	3	24.4	1.413	1,626,393	1,430.0	648.6
	mix of	4	24.7	1.407	837,711	733.4	332.7
	28.2%	5	28.2	1.352	916,860	771.3	349.9
		1	18.2	1.931	1,005,113	477.4	216.6
	LDGT2	2	19.1	1.889	2,618,198	1,216.8	552.0
	with VMT	3	24.4	1.724	1,626,393	689.6	312.8
	mix of	4	24.7	1.717	837,711	353.8	160.5
	11.2%	5	28.2	1.650	916,860	372.1	168.8
		1	18.2	2.008	1,005,113	158.3	71.8
	HDGV	2	19.1	1.931	2,618,198	396.7	179.9
	with VMT	3	24.4	1.571	1,626,393	200.5	91.0
	mix of	4	24.7	1.556	837,711	102.3	46.4
	3.6%	5	28.2	1.396	916,860	100.4	45.5
		1	18.2	0.652	1,005,113	3.2	1.4
	LDDV	2	19.1	0.637	2,618,198	8.1	3.7
	with VMT	3	24.4	0.561	1,626,393	4.4	2.0
	mix of	4	24.7	0.557	837,711	2.3	1.0
	0.2%	5	28.2	0.519	916,860	2.3	1.0
	1	18.2	0.484	1,005,113	23.2	10.5	
LDDT	2	19.1	0.472	2,618,198	58.8	26.7	
with VMT	3	24.4	0.408	1,626,393	31.6	14.3	
mix of	4	24.7	0.405	837,711	16.2	7.3	
2.2%	5	28.2	0.372	916,860	16.2	7.4	
	1	18.2	0.901	1,005,113	181.5	82.3	
HDDV	2	19.1	0.872	2,618,198	457.5	207.5	
with VMT	3	24.4	0.723	1,626,393	235.6	106.9	
mix of	4	24.7	0.716	837,711	120.2	54.5	
9.1%	5	28.2	0.641	916,860	117.8	53.4	
	1	18.2	3.000	1,005,113	33.9	15.4	
MC	2	19.1	2.940	2,618,198	86.5	39.3	
with VMT	3	24.4	2.660	1,626,393	48.6	22.1	
mix of	4	24.7	2.650	837,711	25.0	11.3	
0.5%	5	28.2	2.510	916,860	25.9	11.7	

Table 5.5–1. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.530	187,437	285.1	129.3
	LDGV	2	12.9	1.530	1,911,491	2,907.5	1,318.8
	with VMT	3	12.9	1.530	2,461,963	3,744.8	1,698.6
	mix of	4	12.9	1.530	1,621,930	2,467.0	1,119.0
	45.1%	5	12.9	1.530	821,541	1,249.6	566.8
		1	12.9	1.869	187,437	218.0	98.9
	LDGT1	2	12.9	1.869	1,911,491	2,222.7	1,008.2
	with VMT	3	12.9	1.869	2,461,963	2,862.8	1,298.6
	mix of	4	12.9	1.869	1,621,930	1,886.0	855.5
	28.2%	5	12.9	1.869	821,541	955.3	433.3
		1	12.9	2.278	187,437	105.0	47.6
	LDGT2	2	12.9	2.278	1,911,491	1,071.0	485.8
	with VMT	3	12.9	2.278	2,461,963	1,379.5	625.7
	mix of	4	12.9	2.278	1,621,930	908.8	412.2
	11.2%	5	12.9	2.278	821,541	460.3	208.8
		1	12.9	2.630	187,437	38.7	17.5
	HDGV	2	12.9	2.630	1,911,491	394.5	178.9
	with VMT	3	12.9	2.630	2,461,963	508.0	230.4
	mix of	4	12.9	2.630	1,621,930	334.7	151.8
	3.6%	5	12.9	2.630	821,541	169.5	76.9
	1	12.9	0.760	187,437	0.7	0.3	
LDDV	2	12.9	0.760	1,911,491	7.0	3.2	
with VMT	3	12.9	0.760	2,461,963	9.1	4.1	
mix of	4	12.9	0.760	1,621,930	6.0	2.7	
0.2%	5	12.9	0.760	821,541	3.0	1.4	
	1	12.9	0.576	187,437	5.1	2.3	
LDDT	2	12.9	0.576	1,911,491	52.4	23.8	
with VMT	3	12.9	0.576	2,461,963	67.5	30.6	
mix of	4	12.9	0.576	1,621,930	44.5	20.2	
2.2%	5	12.9	0.576	821,541	22.5	10.2	
	1	12.9	1.114	187,437	41.8	19.0	
HDDV	2	12.9	1.114	1,911,491	426.7	193.5	
with VMT	3	12.9	1.114	2,461,963	549.6	249.3	
mix of	4	12.9	1.114	1,621,930	362.0	164.2	
9.1%	5	12.9	1.114	821,541	183.4	83.2	
	1	12.9	3.550	187,437	7.5	3.4	
MC	2	12.9	3.550	1,911,491	76.3	34.6	
with VMT	3	12.9	3.550	2,461,963	98.3	44.6	
mix of	4	12.9	3.550	1,621,930	64.7	29.4	
0.5%	5	12.9	3.550	821,541	32.8	14.9	

Table 5.5–2. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	0.976	1,083,889	1,051.9	477.1
		2	60.3	0.975	8,684,720	8,418.7	3,818.7
		3	63.2	0.974	5,990,869	5,801.4	2,631.5
		4	64.8	0.974	4,344,627	4,207.2	1,908.4
		5	64.2	0.974	5,435,735	5,263.9	2,387.7
	LDGT1 with VMT mix of 28.2%	1	59.7	1.142	1,083,889	770.1	349.3
		2	60.3	1.139	8,684,720	6,153.5	2,791.2
		3	63.2	1.138	5,990,869	4,240.7	1,923.6
		4	64.8	1.138	4,344,627	3,075.4	1,395.0
		5	64.2	1.138	5,435,735	3,847.8	1,745.4
	LDGT2 with VMT mix of 11.2%	1	59.7	1.379	1,083,889	367.6	166.7
		2	60.3	1.376	8,684,720	2,938.8	1,333.0
		3	63.2	1.373	5,990,869	2,024.2	918.2
		4	64.8	1.373	4,344,627	1,467.9	665.9
		5	64.2	1.373	5,435,735	1,836.6	833.1
	HDGV with VMT mix of 3.6%	1	59.7	0.920	1,083,889	78.2	35.5
		2	60.3	0.919	8,684,720	626.3	284.1
		3	63.2	0.919	5,990,869	432.0	195.9
		4	64.8	0.919	4,344,627	313.3	142.1
		5	64.2	0.919	5,435,735	391.9	177.8
	LDDV with VMT mix of 0.2%	1	59.7	0.393	1,083,889	2.1	0.9
		2	60.3	0.393	8,684,720	16.6	7.5
		3	63.2	0.393	5,990,869	11.4	5.2
		4	64.8	0.393	4,344,627	8.3	3.8
		5	64.2	0.393	5,435,735	10.4	4.7
LDDT with VMT mix of 2.2%	1	59.7	0.267	1,083,889	13.8	6.3	
	2	60.3	0.267	8,684,720	110.4	50.1	
	3	63.2	0.267	5,990,869	76.2	34.5	
	4	64.8	0.267	4,344,627	55.2	25.1	
	5	64.2	0.267	5,435,735	69.1	31.3	
HDDV with VMT mix of 9.1%	1	59.7	0.396	1,083,889	86.0	39.0	
	2	60.3	0.396	8,684,720	689.1	312.6	
	3	63.2	0.396	5,990,869	475.4	215.6	
	4	64.8	0.396	4,344,627	344.7	156.4	
	5	64.2	0.396	5,435,735	431.3	195.6	
MC with VMT mix of 0.5%	1	59.7	2.710	1,083,889	33.0	15.0	
	2	60.3	2.750	8,684,720	268.5	121.8	
	3	63.2	2.780	5,990,869	187.2	84.9	
	4	64.8	2.780	4,344,627	135.8	61.6	
	5	64.2	2.780	5,435,735	169.9	77.1	

Table 5.5–2. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.111	1,043,964	1,152.3	522.7
PRINCIPAL	LDGV	2	34.4	1.071	8,481,150	9,024.2	4,093.4
ARTERIALS	with VMT	3	36.1	1.059	9,404,115	9,901.2	4,491.2
and	mix of	4	39.0	1.045	6,646,476	6,902.5	3,131.0
MINOR	45.1%	5	42.6	1.028	3,589,096	3,668.8	1,664.2
ARTERIALS		1	30.3	1.325	1,043,964	860.4	390.3
	LDGT1	2	34.4	1.275	8,481,150	6,724.5	3,050.2
	with VMT	3	36.1	1.259	9,404,115	7,366.6	3,341.5
	mix of	4	39.0	1.239	6,646,476	5,122.4	2,323.5
	28.2%	5	42.6	1.216	3,589,096	2,715.7	1,231.8
		1	30.3	1.615	1,043,964	414.8	188.1
	LDGT2	2	34.4	1.551	8,481,150	3,235.7	1,467.7
	with VMT	3	36.1	1.533	9,404,115	3,545.4	1,608.2
	mix of	4	39.0	1.508	6,646,476	2,465.9	1,118.5
	11.2%	5	42.6	1.479	3,589,096	1,305.7	592.2
		1	30.3	1.318	1,043,964	108.0	49.0
	HDGV	2	34.4	1.199	8,481,150	797.8	361.9
	with VMT	3	36.1	1.158	9,404,115	854.9	387.8
	mix of	4	39.0	1.100	6,646,476	573.7	260.2
	3.6%	5	42.6	1.042	3,589,096	293.6	133.2
		1	30.3	0.499	1,043,964	2.5	1.1
	LDDV	2	34.4	0.468	8,481,150	19.2	8.7
	with VMT	3	36.1	0.457	9,404,115	20.8	9.5
	mix of	4	39.0	0.440	6,646,476	14.2	6.4
	0.2%	5	42.6	0.424	3,589,096	7.4	3.3
		1	30.3	0.356	1,043,964	17.7	8.0
	LDDT	2	34.4	0.330	8,481,150	133.3	60.4
	with VMT	3	36.1	0.320	9,404,115	143.3	65.0
	mix of	4	39.0	0.307	6,646,476	97.2	44.1
	2.2%	5	42.6	0.293	3,589,096	50.1	22.7
		1	30.3	0.603	1,043,964	126.1	57.2
	HDDV	2	34.4	0.541	8,481,150	919.4	417.0
	with VMT	3	36.1	0.520	9,404,115	979.9	444.5
	mix of	4	39.0	0.488	6,646,476	649.9	294.8
	9.1%	5	42.6	0.456	3,589,096	327.9	148.8
		1	30.3	2.450	1,043,964	28.8	13.0
	MC	2	34.4	2.330	8,481,150	222.2	100.8
	with VMT	3	36.1	2.290	9,404,115	242.1	109.8
	mix of	4	39.0	2.240	6,646,476	167.4	75.9
	0.5%	5	42.6	2.190	3,589,096	88.4	40.1

Table 5.5–2. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.322	1,005,113	1,321.0	599.2
	LDGV	2	19.1	1.298	2,618,198	3,377.6	1,532.1
	with VMT	3	24.4	1.187	1,626,393	1,918.6	870.3
	mix of	4	24.7	1.182	837,711	984.0	446.3
	45.1%	5	28.2	1.134	2,295,304	2,587.1	1,173.5
		1	18.2	1.582	1,005,113	989.4	448.8
	LDGT1	2	19.1	1.549	2,618,198	2,522.5	1,144.2
	with VMT	3	24.4	1.413	1,626,393	1,430.0	648.6
	mix of	4	24.7	1.407	837,711	733.4	332.7
	28.2%	5	28.2	1.352	2,295,304	1,930.9	875.9
		1	18.2	1.931	1,005,113	477.4	216.6
	LDGT2	2	19.1	1.889	2,618,198	1,216.8	552.0
	with VMT	3	24.4	1.724	1,626,393	689.6	312.8
	mix of	4	24.7	1.717	837,711	353.8	160.5
	11.2%	5	28.2	1.650	2,295,304	931.5	422.5
		1	18.2	2.008	1,005,113	158.3	71.8
	HDGV	2	19.1	1.931	2,618,198	396.7	179.9
	with VMT	3	24.4	1.571	1,626,393	200.5	91.0
	mix of	4	24.7	1.556	837,711	102.3	46.4
	3.6%	5	28.2	1.396	2,295,304	251.4	114.0
		1	18.2	0.652	1,005,113	3.2	1.4
	LDDV	2	19.1	0.637	2,618,198	8.1	3.7
	with VMT	3	24.4	0.561	1,626,393	4.4	2.0
	mix of	4	24.7	0.557	837,711	2.3	1.0
	0.2%	5	28.2	0.519	2,295,304	5.8	2.6
	1	18.2	0.484	1,005,113	23.2	10.5	
LDDT	2	19.1	0.472	2,618,198	58.8	26.7	
with VMT	3	24.4	0.408	1,626,393	31.6	14.3	
mix of	4	24.7	0.405	837,711	16.2	7.3	
2.2%	5	28.2	0.372	2,295,304	40.7	18.4	
	1	18.2	0.901	1,005,113	181.5	82.3	
HDDV	2	19.1	0.872	2,618,198	457.5	207.5	
with VMT	3	24.4	0.723	1,626,393	235.6	106.9	
mix of	4	24.7	0.716	837,711	120.2	54.5	
9.1%	5	28.2	0.641	2,295,304	294.8	133.7	
	1	18.2	3.000	1,005,113	33.9	15.4	
MC	2	19.1	2.940	2,618,198	86.5	39.3	
with VMT	3	24.4	2.660	1,626,393	48.6	22.1	
mix of	4	24.7	2.650	837,711	25.0	11.3	
0.5%	5	28.2	2.510	2,295,304	64.8	29.4	

Table 5.5–2. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.530	187,437	285.1	129.3
	LDGV	2	12.9	1.530	1,911,491	2,907.5	1,318.8
	with VMT	3	12.9	1.530	2,461,963	3,744.8	1,698.6
	mix of	4	12.9	1.530	1,621,930	2,467.0	1,119.0
	45.1%	5	12.9	1.530	1,365,660	2,077.2	942.2
		1	12.9	1.869	187,437	218.0	98.9
	LDGT1	2	12.9	1.869	1,911,491	2,222.7	1,008.2
	with VMT	3	12.9	1.869	2,461,963	2,862.8	1,298.6
	mix of	4	12.9	1.869	1,621,930	1,886.0	855.5
	28.2%	5	12.9	1.869	1,365,660	1,588.0	720.3
		1	12.9	2.278	187,437	105.0	47.6
	LDGT2	2	12.9	2.278	1,911,491	1,071.0	485.8
	with VMT	3	12.9	2.278	2,461,963	1,379.5	625.7
	mix of	4	12.9	2.278	1,621,930	908.8	412.2
	11.2%	5	12.9	2.278	1,365,660	765.2	347.1
		1	12.9	2.630	187,437	38.7	17.5
	HDGV	2	12.9	2.630	1,911,491	394.5	178.9
	with VMT	3	12.9	2.630	2,461,963	508.0	230.4
	mix of	4	12.9	2.630	1,621,930	334.7	151.8
	3.6%	5	12.9	2.630	1,365,660	281.8	127.8
	1	12.9	0.760	187,437	0.7	0.3	
LDDV	2	12.9	0.760	1,911,491	7.0	3.2	
with VMT	3	12.9	0.760	2,461,963	9.1	4.1	
mix of	4	12.9	0.760	1,621,930	6.0	2.7	
0.2%	5	12.9	0.760	1,365,660	5.0	2.3	
	1	12.9	0.576	187,437	5.1	2.3	
LDDT	2	12.9	0.576	1,911,491	52.4	23.8	
with VMT	3	12.9	0.576	2,461,963	67.5	30.6	
mix of	4	12.9	0.576	1,621,930	44.5	20.2	
2.2%	5	12.9	0.576	1,365,660	37.5	17.0	
	1	12.9	1.114	187,437	41.8	19.0	
HDDV	2	12.9	1.114	1,911,491	426.7	193.5	
with VMT	3	12.9	1.114	2,461,963	549.6	249.3	
mix of	4	12.9	1.114	1,621,930	362.0	164.2	
9.1%	5	12.9	1.114	1,365,660	304.8	138.3	
	1	12.9	3.550	187,437	7.5	3.4	
MC	2	12.9	3.550	1,911,491	76.3	34.6	
with VMT	3	12.9	3.550	2,461,963	98.3	44.6	
mix of	4	12.9	3.550	1,621,930	64.7	29.4	
0.5%	5	12.9	3.550	1,365,660	54.5	24.7	

Table 5.5-3. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY		1	59.7	0.906	1,129,051	1,016.3	461.0
	LDGV	2	60.3	0.904	9,046,583	8,129.5	3,687.5
	with VMT	3	63.2	0.903	6,240,489	5,602.9	2,541.5
	mix of	4	64.8	0.903	4,525,653	4,063.3	1,843.1
	45.1%	5	64.2	0.903	2,678,544	2,404.9	1,090.9
		1	59.7	1.062	1,129,051	745.5	338.2
	LDGT1	2	60.3	1.060	9,046,583	5,962.5	2,704.6
	with VMT	3	63.2	1.058	6,240,489	4,108.0	1,863.4
	mix of	4	64.8	1.058	4,525,653	2,979.1	1,351.3
	28.2%	5	64.2	1.058	2,678,544	1,763.2	799.8
		1	59.7	1.254	1,129,051	348.4	158.0
	LDGT2	2	60.3	1.252	9,046,583	2,785.7	1,263.6
	with VMT	3	63.2	1.250	6,240,489	1,918.7	870.3
	mix of	4	64.8	1.250	4,525,653	1,391.5	631.2
	11.2%	5	64.2	1.250	2,678,544	823.5	373.6
		1	59.7	0.802	1,129,051	71.1	32.2
	HDGV	2	60.3	0.802	9,046,583	569.3	258.2
	with VMT	3	63.2	0.802	6,240,489	392.5	178.0
	mix of	4	64.8	0.802	4,525,653	284.7	129.1
	3.6%	5	64.2	0.802	2,678,544	168.5	76.4
		1	59.7	0.398	1,129,051	2.2	1.0
	LDDV	2	60.3	0.398	9,046,583	17.5	7.9
	with VMT	3	63.2	0.398	6,240,489	12.0	5.5
	mix of	4	64.8	0.398	4,525,653	8.7	4.0
	0.2%	5	64.2	0.398	2,678,544	5.2	2.3
	1	59.7	0.264	1,129,051	14.2	6.4	
LDDT	2	60.3	0.264	9,046,583	113.6	51.5	
with VMT	3	63.2	0.264	6,240,489	78.4	35.5	
mix of	4	64.8	0.264	4,525,653	56.8	25.8	
2.2%	5	64.2	0.264	2,678,544	33.6	15.3	
	1	59.7	0.390	1,129,051	88.2	40.0	
HDDV	2	60.3	0.390	9,046,583	707.0	320.7	
with VMT	3	63.2	0.390	6,240,489	487.7	221.2	
mix of	4	64.8	0.390	4,525,653	353.7	160.4	
9.1%	5	64.2	0.390	2,678,544	209.3	94.9	
	1	59.7	2.670	1,129,051	33.9	15.4	
MC	2	60.3	2.712	9,046,583	275.8	125.1	
with VMT	3	63.2	2.741	6,240,489	192.3	87.2	
mix of	4	64.8	2.741	4,525,653	139.5	63.3	
0.5%	5	64.2	2.741	2,678,544	82.5	37.4	

Table 5.5–3. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.040	1,087,462	1,124.5	510.1
PRINCIPAL	LDGV	2	34.4	1.003	8,834,531	8,806.5	3,994.6
ARTERIALS	with VMT	3	36.1	0.992	9,795,953	9,656.8	4,380.3
and	mix of	4	39.0	0.974	6,923,412	6,703.3	3,040.6
MINOR	45.1%	5	42.6	0.957	2,670,291	2,540.8	1,152.5
ARTERIALS		1	30.3	1.226	1,087,462	829.3	376.2
	LDGT1	2	34.4	1.183	8,834,531	6,499.2	2,948.1
	with VMT	3	36.1	1.170	9,795,953	7,128.5	3,233.5
	mix of	4	39.0	1.150	6,923,412	4,952.5	2,246.4
	28.2%	5	42.6	1.130	2,670,291	1,877.1	851.4
		1	30.3	1.469	1,087,462	392.9	178.2
	LDGT2	2	34.4	1.412	8,834,531	3,068.8	1,392.0
	with VMT	3	36.1	1.396	9,795,953	3,363.9	1,525.9
	mix of	4	39.0	1.372	6,923,412	2,336.1	1,059.7
	11.2%	5	42.6	1.347	2,670,291	884.9	401.4
		1	30.3	1.181	1,087,462	100.8	45.7
	HDGV	2	34.4	1.067	8,834,531	740.0	335.6
	with VMT	3	36.1	1.029	9,795,953	791.3	359.0
	mix of	4	39.0	0.974	6,923,412	529.0	240.0
	3.6%	5	42.6	0.919	2,670,291	192.6	87.3
		1	30.3	0.505	1,087,462	2.7	1.2
	LDDV	2	34.4	0.473	8,834,531	20.3	9.2
	with VMT	3	36.1	0.462	9,795,953	21.9	10.0
	mix of	4	39.0	0.445	6,923,412	14.9	6.8
	0.2%	5	42.6	0.429	2,670,291	5.6	2.5
		1	30.3	0.352	1,087,462	18.2	8.3
	LDDT	2	34.4	0.326	8,834,531	136.9	62.1
	with VMT	3	36.1	0.316	9,795,953	147.5	66.9
	mix of	4	39.0	0.303	6,923,412	99.9	45.3
	2.2%	5	42.6	0.289	2,670,291	36.8	16.7
		1	30.3	0.594	1,087,462	129.4	58.7
	HDDV	2	34.4	0.533	8,834,531	943.0	427.7
	with VMT	3	36.1	0.512	9,795,953	1,005.0	455.9
	mix of	4	39.0	0.481	6,923,412	666.6	302.4
	9.1%	5	42.6	0.449	2,670,291	240.2	109.0
		1	30.3	2.413	1,087,462	29.5	13.4
	MC	2	34.4	2.302	8,834,531	228.6	103.7
	with VMT	3	36.1	2.265	9,795,953	249.4	113.1
	mix of	4	39.0	2.209	6,923,412	171.9	78.0
	0.5%	5	42.6	2.162	2,670,291	64.9	29.4

Table 5.5–3. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.249	1,046,993	1,299.6	589.5
	LDGV	2	19.1	1.222	2,727,290	3,312.0	1,502.3
	with VMT	3	24.4	1.112	1,694,159	1,873.2	849.7
	mix of	4	24.7	1.108	872,616	960.7	435.8
	45.1%	5	28.2	1.062	955,062	1,007.7	457.1
		1	18.2	1.461	1,046,993	951.6	431.7
	LDGT1	2	19.1	1.427	2,727,290	2,421.0	1,098.2
	with VMT	3	24.4	1.302	1,694,159	1,372.2	622.4
	mix of	4	24.7	1.297	872,616	703.9	319.3
	28.2%	5	28.2	1.248	955,062	741.5	336.4
		1	18.2	1.758	1,046,993	452.7	205.3
	LDGT2	2	19.1	1.717	2,727,290	1,152.0	522.5
	with VMT	3	24.4	1.563	1,694,159	651.5	295.5
	mix of	4	24.7	1.557	872,616	334.2	151.6
	11.2%	5	28.2	1.496	955,062	351.6	159.5
		1	18.2	1.841	1,046,993	151.2	68.6
	HDGV	2	19.1	1.764	2,727,290	377.6	171.3
	with VMT	3	24.4	1.421	1,694,159	188.9	85.7
	mix of	4	24.7	1.406	872,616	96.3	43.7
	3.6%	5	28.2	1.255	955,062	94.0	42.7
		1	18.2	0.658	1,046,993	3.3	1.5
	LDDV	2	19.1	0.644	2,727,290	8.5	3.9
	with VMT	3	24.4	0.567	1,694,159	4.7	2.1
	mix of	4	24.7	0.563	872,616	2.4	1.1
	0.2%	5	28.2	0.524	955,062	2.4	1.1
	1	18.2	0.478	1,046,993	23.8	10.8	
LDDT	2	19.1	0.466	2,727,290	60.5	27.4	
with VMT	3	24.4	0.403	1,694,159	32.5	14.7	
mix of	4	24.7	0.400	872,616	16.6	7.5	
2.2%	5	28.2	0.367	955,062	16.7	7.6	
	1	18.2	0.887	1,046,993	186.2	84.4	
HDDV	2	19.1	0.859	2,727,290	469.5	213.0	
with VMT	3	24.4	0.712	1,694,159	241.8	109.7	
mix of	4	24.7	0.705	872,616	123.3	55.9	
9.1%	5	28.2	0.631	955,062	120.8	54.8	
	1	18.2	2.947	1,046,993	34.7	15.7	
MC	2	19.1	2.891	2,727,290	88.7	40.2	
with VMT	3	24.4	2.626	1,694,159	50.0	22.7	
mix of	4	24.7	2.613	872,616	25.6	11.6	
0.5%	5	28.2	2.481	955,062	26.6	12.1	

Table 5.5–3. Daily VOC emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.474	195,247	286.1	129.8
	LDGV	2	12.9	1.474	1,991,136	2,917.2	1,323.2
	with VMT	3	12.9	1.474	2,564,545	3,757.3	1,704.3
	mix of	4	12.9	1.474	1,689,510	2,475.3	1,122.8
	45.1%	5	12.9	1.474	855,772	1,253.8	568.7
		1	12.9	1.743	195,247	211.6	96.0
	LDGT1	2	12.9	1.743	1,991,136	2,158.3	979.0
	with VMT	3	12.9	1.743	2,564,545	2,779.9	1,260.9
	mix of	4	12.9	1.743	1,689,510	1,831.4	830.7
	28.2%	5	12.9	1.743	855,772	927.6	420.8
		1	12.9	2.096	195,247	100.7	45.7
	LDGT2	2	12.9	2.096	1,991,136	1,026.6	465.7
	with VMT	3	12.9	2.096	2,564,545	1,322.2	599.8
	mix of	4	12.9	2.096	1,689,510	871.1	395.1
	11.2%	5	12.9	2.096	855,772	441.2	200.1
		1	12.9	2.457	195,247	37.6	17.1
	HDGV	2	12.9	2.457	1,991,136	384.0	174.2
	with VMT	3	12.9	2.457	2,564,545	494.5	224.3
	mix of	4	12.9	2.457	1,689,510	325.8	147.8
	3.6%	5	12.9	2.457	855,772	165.0	74.9
		1	12.9	0.768	195,247	0.7	0.3
	LDDV	2	12.9	0.768	1,991,136	7.4	3.4
	with VMT	3	12.9	0.768	2,564,545	9.6	4.3
	mix of	4	12.9	0.768	1,689,510	6.3	2.9
	0.2%	5	12.9	0.768	855,772	3.2	1.4
	1	12.9	0.568	195,247	5.3	2.4	
LDDT	2	12.9	0.568	1,991,136	53.8	24.4	
with VMT	3	12.9	0.568	2,564,545	69.3	31.5	
mix of	4	12.9	0.568	1,689,510	45.7	20.7	
2.2%	5	12.9	0.568	855,772	23.1	10.5	
	1	12.9	1.097	195,247	42.9	19.5	
HDDV	2	12.9	1.097	1,991,136	437.8	198.6	
with VMT	3	12.9	1.097	2,564,545	563.8	255.8	
mix of	4	12.9	1.097	1,689,510	371.4	168.5	
9.1%	5	12.9	1.097	855,772	188.1	85.3	
	1	12.9	3.486	195,247	7.7	3.5	
MC	2	12.9	3.486	1,991,136	78.0	35.4	
with VMT	3	12.9	3.486	2,564,545	100.5	45.6	
mix of	4	12.9	3.486	1,689,510	66.2	30.0	
0.5%	5	12.9	3.486	855,772	33.5	15.2	

Table 5.5-4. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (annual average day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	0.906	1,129,051	1,016.3	461.0
		2	60.3	0.904	9,046,583	8,129.5	3,687.5
		3	63.2	0.903	6,240,489	5,602.9	2,541.5
		4	64.8	0.903	4,525,653	4,063.3	1,843.1
		5	64.2	0.903	5,662,224	5,083.7	2,306.0
	LDGT1 with VMT mix of 28.2%	1	59.7	1.062	1,129,051	745.5	338.2
		2	60.3	1.060	9,046,583	5,962.5	2,704.6
		3	63.2	1.058	6,240,489	4,108.0	1,863.4
		4	64.8	1.058	4,525,653	2,979.1	1,351.3
		5	64.2	1.058	5,662,224	3,727.3	1,690.7
	LDGT2 with VMT mix of 11.2%	1	59.7	1.254	1,129,051	348.4	158.0
		2	60.3	1.252	9,046,583	2,785.7	1,263.6
		3	63.2	1.250	6,240,489	1,918.7	870.3
		4	64.8	1.250	4,525,653	1,391.5	631.2
		5	64.2	1.250	5,662,224	1,740.9	789.7
	HDGV with VMT mix of 3.6%	1	59.7	0.802	1,129,051	71.1	32.2
		2	60.3	0.802	9,046,583	569.3	258.2
		3	63.2	0.802	6,240,489	392.5	178.0
		4	64.8	0.802	4,525,653	284.7	129.1
		5	64.2	0.802	5,662,224	356.1	161.5
	LDDV with VMT mix of 0.2%	1	59.7	0.398	1,129,051	2.2	1.0
		2	60.3	0.398	9,046,583	17.5	7.9
		3	63.2	0.398	6,240,489	12.0	5.5
		4	64.8	0.398	4,525,653	8.7	4.0
		5	64.2	0.398	5,662,224	10.9	5.0
LDDT with VMT mix of 2.2%	1	59.7	0.264	1,129,051	14.2	6.4	
	2	60.3	0.264	9,046,583	113.6	51.5	
	3	63.2	0.264	6,240,489	78.4	35.5	
	4	64.8	0.264	4,525,653	56.8	25.8	
	5	64.2	0.264	5,662,224	71.1	32.2	
HDDV with VMT mix of 9.1%	1	59.7	0.390	1,129,051	88.2	40.0	
	2	60.3	0.390	9,046,583	707.0	320.7	
	3	63.2	0.390	6,240,489	487.7	221.2	
	4	64.8	0.390	4,525,653	353.7	160.4	
	5	64.2	0.390	5,662,224	442.5	200.7	
MC with VMT mix of 0.5%	1	59.7	2.670	1,129,051	33.9	15.4	
	2	60.3	2.712	9,046,583	275.8	125.1	
	3	63.2	2.741	6,240,489	192.3	87.2	
	4	64.8	2.741	4,525,653	139.5	63.3	
	5	64.2	2.741	5,662,224	174.5	79.2	

Table 5.5–4. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.040	1,087,462	1,124.5	510.1
PRINCIPAL	LDGV	2	34.4	1.003	8,834,531	8,806.5	3,994.6
ARTERIALS	with VMT	3	36.1	0.992	9,795,953	9,656.8	4,380.3
and	mix of	4	39.0	0.974	6,923,412	6,703.3	3,040.6
MINOR	45.1%	5	42.6	0.957	3,738,642	3,557.3	1,613.6
ARTERIALS		1	30.3	1.226	1,087,462	829.3	376.2
	LDGT1	2	34.4	1.183	8,834,531	6,499.2	2,948.1
	with VMT	3	36.1	1.170	9,795,953	7,128.5	3,233.5
	mix of	4	39.0	1.150	6,923,412	4,952.5	2,246.4
	28.2%	5	42.6	1.130	3,738,642	2,628.0	1,192.1
		1	30.3	1.469	1,087,462	392.9	178.2
	LDGT2	2	34.4	1.412	8,834,531	3,068.8	1,392.0
	with VMT	3	36.1	1.396	9,795,953	3,363.9	1,525.9
	mix of	4	39.0	1.372	6,923,412	2,336.1	1,059.7
	11.2%	5	42.6	1.347	3,738,642	1,238.9	562.0
		1	30.3	1.181	1,087,462	100.8	45.7
	HDGV	2	34.4	1.067	8,834,531	740.0	335.6
	with VMT	3	36.1	1.029	9,795,953	791.3	359.0
	mix of	4	39.0	0.974	6,923,412	529.0	240.0
	3.6%	5	42.6	0.919	3,738,642	269.6	122.3
		1	30.3	0.505	1,087,462	2.7	1.2
	LDDV	2	34.4	0.473	8,834,531	20.3	9.2
	with VMT	3	36.1	0.462	9,795,953	21.9	10.0
	mix of	4	39.0	0.445	6,923,412	14.9	6.8
	0.2%	5	42.6	0.429	3,738,642	7.8	3.5
		1	30.3	0.352	1,087,462	18.2	8.3
	LDDT	2	34.4	0.326	8,834,531	136.9	62.1
	with VMT	3	36.1	0.316	9,795,953	147.5	66.9
	mix of	4	39.0	0.303	6,923,412	99.9	45.3
	2.2%	5	42.6	0.289	3,738,642	51.5	23.4
		1	30.3	0.594	1,087,462	129.4	58.7
	HDDV	2	34.4	0.533	8,834,531	943.0	427.7
	with VMT	3	36.1	0.512	9,795,953	1,005.0	455.9
	mix of	4	39.0	0.481	6,923,412	666.6	302.4
	9.1%	5	42.6	0.449	3,738,642	336.4	152.6
		1	30.3	2.413	1,087,462	29.5	13.4
	MC	2	34.4	2.302	8,834,531	228.6	103.7
	with VMT	3	36.1	2.265	9,795,953	249.4	113.1
	mix of	4	39.0	2.209	6,923,412	171.9	78.0
	0.5%	5	42.6	2.162	3,738,642	90.9	41.2

Table 5.5–4. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.249	1,046,993	1,299.6	589.5
	LDGV	2	19.1	1.222	2,727,290	3,312.0	1,502.3
	with VMT	3	24.4	1.112	1,694,159	1,873.2	849.7
	mix of	4	24.7	1.108	872,616	960.7	435.8
	45.1%	5	28.2	1.062	2,390,942	2,522.6	1,144.3
		1	18.2	1.461	1,046,993	951.6	431.7
	LDGT1	2	19.1	1.427	2,727,290	2,421.0	1,098.2
	with VMT	3	24.4	1.302	1,694,159	1,372.2	622.4
	mix of	4	24.7	1.297	872,616	703.9	319.3
	28.2%	5	28.2	1.248	2,390,942	1,856.3	842.0
		1	18.2	1.758	1,046,993	452.7	205.3
	LDGT2	2	19.1	1.717	2,727,290	1,152.0	522.5
	with VMT	3	24.4	1.563	1,694,159	651.5	295.5
	mix of	4	24.7	1.557	872,616	334.2	151.6
	11.2%	5	28.2	1.496	2,390,942	880.1	399.2
		1	18.2	1.841	1,046,993	151.2	68.6
	HDGV	2	19.1	1.764	2,727,290	377.6	171.3
	with VMT	3	24.4	1.421	1,694,159	188.9	85.7
	mix of	4	24.7	1.406	872,616	96.3	43.7
	3.6%	5	28.2	1.255	2,390,942	235.4	106.8
		1	18.2	0.658	1,046,993	3.3	1.5
	LDDV	2	19.1	0.644	2,727,290	8.5	3.9
	with VMT	3	24.4	0.567	1,694,159	4.7	2.1
	mix of	4	24.7	0.563	872,616	2.4	1.1
	0.2%	5	28.2	0.524	2,390,942	6.1	2.8
	1	18.2	0.478	1,046,993	23.8	10.8	
LDDT	2	19.1	0.466	2,727,290	60.5	27.4	
with VMT	3	24.4	0.403	1,694,159	32.5	14.7	
mix of	4	24.7	0.400	872,616	16.6	7.5	
2.2%	5	28.2	0.367	2,390,942	41.8	19.0	
	1	18.2	0.887	1,046,993	186.2	84.4	
HDDV	2	19.1	0.859	2,727,290	469.5	213.0	
with VMT	3	24.4	0.712	1,694,159	241.8	109.7	
mix of	4	24.7	0.705	872,616	123.3	55.9	
9.1%	5	28.2	0.631	2,390,942	302.4	137.2	
	1	18.2	2.947	1,046,993	34.7	15.7	
MC	2	19.1	2.891	2,727,290	88.7	40.2	
with VMT	3	24.4	2.626	1,694,159	50.0	22.7	
mix of	4	24.7	2.613	872,616	25.6	11.6	
0.5%	5	28.2	2.481	2,390,942	66.7	30.2	

Table 5.5–4. Daily VOC emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.474	195,247	286.1	129.8
	LDGV	2	12.9	1.474	1,991,136	2,917.2	1,323.2
	with VMT	3	12.9	1.474	2,564,545	3,757.3	1,704.3
	mix of	4	12.9	1.474	1,689,510	2,475.3	1,122.8
	45.1%	5	12.9	1.474	1,422,562	2,084.2	945.4
		1	12.9	1.743	195,247	211.6	96.0
	LDGT1	2	12.9	1.743	1,991,136	2,158.3	979.0
	with VMT	3	12.9	1.743	2,564,545	2,779.9	1,260.9
	mix of	4	12.9	1.743	1,689,510	1,831.4	830.7
	28.2%	5	12.9	1.743	1,422,562	1,542.0	699.5
		1	12.9	2.096	195,247	100.7	45.7
	LDGT2	2	12.9	2.096	1,991,136	1,026.6	465.7
	with VMT	3	12.9	2.096	2,564,545	1,322.2	599.8
	mix of	4	12.9	2.096	1,689,510	871.1	395.1
	11.2%	5	12.9	2.096	1,422,562	733.4	332.7
		1	12.9	2.457	195,247	37.6	17.1
	HDGV	2	12.9	2.457	1,991,136	384.0	174.2
	with VMT	3	12.9	2.457	2,564,545	494.5	224.3
	mix of	4	12.9	2.457	1,689,510	325.8	147.8
	3.6%	5	12.9	2.457	1,422,562	274.3	124.4
		1	12.9	0.768	195,247	0.7	0.3
	LDDV	2	12.9	0.768	1,991,136	7.4	3.4
	with VMT	3	12.9	0.768	2,564,545	9.6	4.3
	mix of	4	12.9	0.768	1,689,510	6.3	2.9
	0.2%	5	12.9	0.768	1,422,562	5.3	2.4
	1	12.9	0.568	195,247	5.3	2.4	
LDDT	2	12.9	0.568	1,991,136	53.8	24.4	
with VMT	3	12.9	0.568	2,564,545	69.3	31.5	
mix of	4	12.9	0.568	1,689,510	45.7	20.7	
2.2%	5	12.9	0.568	1,422,562	38.5	17.4	
	1	12.9	1.097	195,247	42.9	19.5	
HDDV	2	12.9	1.097	1,991,136	437.8	198.6	
with VMT	3	12.9	1.097	2,564,545	563.8	255.8	
mix of	4	12.9	1.097	1,689,510	371.4	168.5	
9.1%	5	12.9	1.097	1,422,562	312.8	141.9	
	1	12.9	3.486	195,247	7.7	3.5	
MC	2	12.9	3.486	1,991,136	78.0	35.4	
with VMT	3	12.9	3.486	2,564,545	100.5	45.6	
mix of	4	12.9	3.486	1,689,510	66.2	30.0	
0.5%	5	12.9	3.486	1,422,562	55.8	25.3	

Table 5.5–5. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	1.074	1,083,889	1,157.0	524.8
		2	60.3	1.076	8,684,720	9,287.9	4,213.0
		3	63.2	1.077	5,990,869	6,412.9	2,908.9
		4	64.8	1.077	4,344,627	4,650.7	2,109.5
		5	64.2	1.077	2,571,402	2,752.5	1,248.6
	LDGT1 with VMT mix of 28.2%	1	59.7	1.342	1,083,889	904.5	410.3
		2	60.3	1.344	8,684,720	7,259.0	3,292.7
		3	63.2	1.346	5,990,869	5,014.5	2,274.6
		4	64.8	1.346	4,344,627	3,636.6	1,649.5
		5	64.2	1.346	2,571,402	2,152.3	976.3
	LDGT2 with VMT mix of 11.2%	1	59.7	1.637	1,083,889	436.4	198.0
		2	60.3	1.640	8,684,720	3,502.9	1,588.9
		3	63.2	1.642	5,990,869	2,419.3	1,097.4
		4	64.8	1.642	4,344,627	1,754.5	795.8
		5	64.2	1.642	2,571,402	1,038.4	471.0
	HDGV with VMT mix of 3.6%	1	59.7	5.611	1,083,889	477.3	216.5
		2	60.3	5.635	8,684,720	3,840.7	1,742.2
		3	63.2	5.650	5,990,869	2,656.5	1,205.0
		4	64.8	5.650	4,344,627	1,926.5	873.9
		5	64.2	5.650	2,571,402	1,140.2	517.2
LDDV with VMT mix of 0.2%	1	59.7	1.789	1,083,889	9.4	4.3	
	2	60.3	1.834	8,684,720	77.2	35.0	
	3	63.2	1.864	5,990,869	54.2	24.6	
	4	64.8	1.864	4,344,627	39.3	17.8	
	5	64.2	1.864	2,571,402	23.2	10.5	
LDDT with VMT mix of 2.2%	1	59.7	1.191	1,083,889	61.5	27.9	
	2	60.3	1.221	8,684,720	504.9	229.0	
	3	63.2	1.241	5,990,869	354.0	160.6	
	4	64.8	1.241	4,344,627	256.7	116.4	
	5	64.2	1.241	2,571,402	151.9	68.9	
HDDV with VMT mix of 9.1%	1	59.7	23.579	1,083,889	5,121.0	2,322.9	
	2	60.3	24.050	8,684,720	41,852.2	18,984.2	
	3	63.2	24.357	5,990,869	29,238.9	13,262.8	
	4	64.8	24.357	4,344,627	21,204.3	9,618.3	
	5	64.2	24.357	2,571,402	12,549.9	5,692.6	
MC with VMT mix of 0.5%	1	59.7	1.630	1,083,889	19.9	9.0	
	2	60.3	1.650	8,684,720	161.1	73.1	
	3	63.2	1.660	5,990,869	111.8	50.7	
	4	64.8	1.660	4,344,627	81.1	36.8	
	5	64.2	1.660	2,571,402	48.0	21.8	

Table 5.5–5. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.038	1,043,964	1,076.7	488.4
PRINCIPAL	LDGV	2	34.4	1.009	8,481,150	8,509.6	3,859.9
ARTERIALS	with VMT	3	36.1	1.007	9,404,115	9,415.4	4,270.8
and	mix of	4	39.0	1.009	6,646,476	6,667.6	3,024.4
MINOR	45.1%	5	42.6	1.015	2,563,479	2,586.7	1,173.3
ARTERIALS		1	30.3	1.246	1,043,964	809.5	367.2
	LDGT1	2	34.4	1.227	8,481,150	6,475.5	2,937.3
	with VMT	3	36.1	1.227	9,404,115	7,180.2	3,256.9
	mix of	4	39.0	1.234	6,646,476	5,103.3	2,314.9
	28.2%	5	42.6	1.246	2,563,479	1,987.4	901.5
		1	30.3	1.544	1,043,964	396.4	179.8
	LDGT2	2	34.4	1.522	8,481,150	3,176.3	1,440.8
	with VMT	3	36.1	1.522	9,404,115	3,521.8	1,597.5
	mix of	4	39.0	1.527	6,646,476	2,497.4	1,132.8
	11.2%	5	42.6	1.538	2,563,479	970.2	440.1
		1	30.3	4.485	1,043,964	367.5	166.7
	HDGV	2	34.4	4.634	8,481,150	3,084.5	1,399.1
	with VMT	3	36.1	4.698	9,404,115	3,466.8	1,572.5
	mix of	4	39.0	4.803	6,646,476	2,505.0	1,136.3
	3.6%	5	42.6	4.934	2,563,479	992.5	450.2
		1	30.3	1.006	1,043,964	5.1	2.3
	LDDV	2	34.4	0.998	8,481,150	41.0	18.6
	with VMT	3	36.1	1.003	9,404,115	45.7	20.7
	mix of	4	39.0	1.018	6,646,476	32.8	14.9
	0.2%	5	42.6	1.057	2,563,479	13.1	6.0
		1	30.3	0.664	1,043,964	33.0	15.0
	LDDT	2	34.4	0.659	8,481,150	266.1	120.7
	with VMT	3	36.1	0.663	9,404,115	296.9	134.7
	mix of	4	39.0	0.672	6,646,476	212.7	96.5
	2.2%	5	42.6	0.698	2,563,479	85.2	38.6
		1	30.3	12.407	1,043,964	2,595.4	1,177.3
	HDDV	2	34.4	12.331	8,481,150	20,955.6	9,505.5
	with VMT	3	36.1	12.386	9,404,115	23,339.8	10,586.9
	mix of	4	39.0	12.537	6,646,476	16,696.8	7,573.7
	9.1%	5	42.6	12.937	2,563,479	6,645.2	3,014.3
		1	30.3	1.140	1,043,964	13.4	6.1
	MC	2	34.4	1.170	8,481,150	111.6	50.6
	with VMT	3	36.1	1.190	9,404,115	125.8	57.1
	mix of	4	39.0	1.200	6,646,476	89.7	40.7
	0.5%	5	42.6	1.220	2,563,479	35.2	15.9

Table 5.5–5. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.223	1,005,113	1,221.8	554.2
	LDGV	2	19.1	1.202	2,618,198	3,127.5	1,418.6
	with VMT	3	24.4	1.107	1,626,393	1,789.7	811.8
	mix of	4	24.7	1.103	837,711	918.4	416.6
	45.1%	5	28.2	1.059	916,860	964.9	437.7
		1	18.2	1.411	1,005,113	882.0	400.1
	LDGT1	2	19.1	1.392	2,618,198	2,266.4	1,028.0
	with VMT	3	24.4	1.307	1,626,393	1,322.2	599.8
	mix of	4	24.7	1.303	837,711	678.9	308.0
	28.2%	5	28.2	1.265	916,860	721.3	327.2
		1	18.2	1.744	1,005,113	431.1	195.6
	LDGT2	2	19.1	1.720	2,618,198	1,108.1	502.7
	with VMT	3	24.4	1.617	1,626,393	647.0	293.5
	mix of	4	24.7	1.612	837,711	332.2	150.7
	11.2%	5	28.2	1.566	916,860	353.1	160.2
		1	18.2	4.058	1,005,113	320.1	145.2
	HDGV	2	19.1	4.086	2,618,198	839.5	380.8
	with VMT	3	24.4	4.274	1,626,393	545.5	247.4
	mix of	4	24.7	4.283	837,711	281.6	127.7
	3.6%	5	28.2	4.415	916,860	317.7	144.1
		1	18.2	1.173	1,005,113	5.7	2.6
	LDDV	2	19.1	1.152	2,618,198	14.6	6.6
	with VMT	3	24.4	1.058	1,626,393	8.3	3.8
	mix of	4	24.7	1.054	837,711	4.3	1.9
	0.2%	5	28.2	1.020	916,860	4.5	2.1
	1	18.2	0.777	1,005,113	37.2	16.9	
LDDT	2	19.1	0.763	2,618,198	95.1	43.1	
with VMT	3	24.4	0.699	1,626,393	54.1	24.6	
mix of	4	24.7	0.697	837,711	27.8	12.6	
2.2%	5	28.2	0.674	916,860	29.4	13.3	
	1	18.2	14.146	1,005,113	2,849.0	1,292.3	
HDDV	2	19.1	13.932	2,618,198	7,309.1	3,315.4	
with VMT	3	24.4	12.953	1,626,393	4,221.3	1,914.8	
mix of	4	24.7	12.910	837,711	2,167.0	983.0	
9.1%	5	28.2	12.558	916,860	2,307.1	1,046.5	
	1	18.2	1.000	1,005,113	11.3	5.1	
MC	2	19.1	1.010	2,618,198	29.7	13.5	
with VMT	3	24.4	1.070	1,626,393	19.6	8.9	
mix of	4	24.7	1.080	837,711	10.2	4.6	
0.5%	5	28.2	1.120	916,860	11.5	5.2	

Table 5.5–5. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.402	187,437	261.2	118.5
	LDGV	2	12.9	1.402	1,911,491	2,663.9	1,208.3
	with VMT	3	12.9	1.402	2,461,963	3,431.1	1,556.3
	mix of	4	12.9	1.402	1,621,930	2,260.4	1,025.3
	45.1%	5	12.9	1.402	821,541	1,144.9	519.3
		1	12.9	1.576	187,437	183.7	83.3
	LDGT1	2	12.9	1.576	1,911,491	1,873.8	850.0
	with VMT	3	12.9	1.576	2,461,963	2,413.5	1,094.7
	mix of	4	12.9	1.576	1,621,930	1,590.0	721.2
	28.2%	5	12.9	1.576	821,541	805.4	365.3
		1	12.9	1.942	187,437	89.5	40.6
	LDGT2	2	12.9	1.942	1,911,491	913.1	414.2
	with VMT	3	12.9	1.942	2,461,963	1,176.0	533.4
	mix of	4	12.9	1.942	1,621,930	774.8	351.4
	11.2%	5	12.9	1.942	821,541	392.4	178.0
		1	12.9	3.872	187,437	57.0	25.8
	HDGV	2	12.9	3.872	1,911,491	580.8	263.4
	with VMT	3	12.9	3.872	2,461,963	748.0	339.3
	mix of	4	12.9	3.872	1,621,930	492.8	223.5
	3.6%	5	12.9	3.872	821,541	249.6	113.2
		1	12.9	1.331	187,437	1.2	0.5
	LDDV	2	12.9	1.331	1,911,491	12.3	5.6
	with VMT	3	12.9	1.331	2,461,963	15.9	7.2
	mix of	4	12.9	1.331	1,621,930	10.5	4.7
	0.2%	5	12.9	1.331	821,541	5.3	2.4
	1	12.9	0.883	187,437	7.9	3.6	
LDDT	2	12.9	0.883	1,911,491	80.4	36.5	
with VMT	3	12.9	0.883	2,461,963	103.5	47.0	
mix of	4	12.9	0.883	1,621,930	68.2	30.9	
2.2%	5	12.9	0.883	821,541	34.5	15.7	
	1	12.9	15.790	187,437	593.0	269.0	
HDDV	2	12.9	15.790	1,911,491	6,047.9	2,743.3	
with VMT	3	12.9	15.790	2,461,963	7,789.5	3,533.3	
mix of	4	12.9	15.790	1,621,930	5,131.7	2,327.7	
9.1%	5	12.9	15.790	821,541	2,599.3	1,179.0	
	1	12.9	0.960	187,437	2.0	0.9	
MC	2	12.9	0.960	1,911,491	20.6	9.4	
with VMT	3	12.9	0.960	2,461,963	26.6	12.1	
mix of	4	12.9	0.960	1,621,930	17.5	7.9	
0.5%	5	12.9	0.960	821,541	8.9	4.0	

Table 5.5–6. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	1.074	1,083,889	1,157.0	524.8
		2	60.3	1.076	8,684,720	9,287.9	4,213.0
		3	63.2	1.077	5,990,869	6,412.9	2,908.9
		4	64.8	1.077	4,344,627	4,650.7	2,109.5
		5	64.2	1.077	5,435,735	5,818.6	2,639.3
	LDGT1 with VMT mix of 28.2%	1	59.7	1.342	1,083,889	904.5	410.3
		2	60.3	1.344	8,684,720	7,259.0	3,292.7
		3	63.2	1.346	5,990,869	5,014.5	2,274.6
		4	64.8	1.346	4,344,627	3,636.6	1,649.5
		5	64.2	1.346	5,435,735	4,549.8	2,063.8
	LDGT2 with VMT mix of 11.2%	1	59.7	1.637	1,083,889	436.4	198.0
		2	60.3	1.640	8,684,720	3,502.9	1,588.9
		3	63.2	1.642	5,990,869	2,419.3	1,097.4
		4	64.8	1.642	4,344,627	1,754.5	795.8
		5	64.2	1.642	5,435,735	2,195.1	995.7
	HDGV with VMT mix of 3.6%	1	59.7	5.611	1,083,889	477.3	216.5
		2	60.3	5.635	8,684,720	3,840.7	1,742.2
		3	63.2	5.650	5,990,869	2,656.5	1,205.0
		4	64.8	5.650	4,344,627	1,926.5	873.9
		5	64.2	5.650	5,435,735	2,410.3	1,093.3
LDDV with VMT mix of 0.2%	1	59.7	1.789	1,083,889	9.4	4.3	
	2	60.3	1.834	8,684,720	77.2	35.0	
	3	63.2	1.864	5,990,869	54.2	24.6	
	4	64.8	1.864	4,344,627	39.3	17.8	
	5	64.2	1.864	5,435,735	49.1	22.3	
LDDT with VMT mix of 2.2%	1	59.7	1.191	1,083,889	61.5	27.9	
	2	60.3	1.221	8,684,720	504.9	229.0	
	3	63.2	1.241	5,990,869	354.0	160.6	
	4	64.8	1.241	4,344,627	256.7	116.4	
	5	64.2	1.241	5,435,735	321.2	145.7	
HDDV with VMT mix of 9.1%	1	59.7	23.579	1,083,889	5,121.0	2,322.9	
	2	60.3	24.050	8,684,720	41,852.2	18,984.2	
	3	63.2	24.357	5,990,869	29,238.9	13,262.8	
	4	64.8	24.357	4,344,627	21,204.3	9,618.3	
	5	64.2	24.357	5,435,735	26,529.5	12,033.8	
MC with VMT mix of 0.5%	1	59.7	1.630	1,083,889	19.9	9.0	
	2	60.3	1.650	8,684,720	161.1	73.1	
	3	63.2	1.660	5,990,869	111.8	50.7	
	4	64.8	1.660	4,344,627	81.1	36.8	
	5	64.2	1.660	5,435,735	101.4	46.0	

Table 5.5–6. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.038	1,043,964	1,076.7	488.4
PRINCIPAL	LDGV	2	34.4	1.009	8,481,150	8,509.6	3,859.9
ARTERIALS	with VMT	3	36.1	1.007	9,404,115	9,415.4	4,270.8
and	mix of	4	39.0	1.009	6,646,476	6,667.6	3,024.4
MINOR	45.1%	5	42.6	1.015	3,589,096	3,621.6	1,642.8
ARTERIALS		1	30.3	1.246	1,043,964	809.5	367.2
	LDGT1	2	34.4	1.227	8,481,150	6,475.5	2,937.3
	with VMT	3	36.1	1.227	9,404,115	7,180.2	3,256.9
	mix of	4	39.0	1.234	6,646,476	5,103.3	2,314.9
	28.2%	5	42.6	1.246	3,589,096	2,782.6	1,262.2
		1	30.3	1.544	1,043,964	396.4	179.8
	LDGT2	2	34.4	1.522	8,481,150	3,176.3	1,440.8
	with VMT	3	36.1	1.522	9,404,115	3,521.8	1,597.5
	mix of	4	39.0	1.527	6,646,476	2,497.4	1,132.8
	11.2%	5	42.6	1.538	3,589,096	1,358.3	616.1
		1	30.3	4.485	1,043,964	367.5	166.7
	HDGV	2	34.4	4.634	8,481,150	3,084.5	1,399.1
	with VMT	3	36.1	4.698	9,404,115	3,466.8	1,572.5
	mix of	4	39.0	4.803	6,646,476	2,505.0	1,136.3
	3.6%	5	42.6	4.934	3,589,096	1,389.6	630.3
		1	30.3	1.006	1,043,964	5.1	2.3
	LDDV	2	34.4	0.998	8,481,150	41.0	18.6
	with VMT	3	36.1	1.003	9,404,115	45.7	20.7
	mix of	4	39.0	1.018	6,646,476	32.8	14.9
	0.2%	5	42.6	1.057	3,589,096	18.4	8.3
		1	30.3	0.664	1,043,964	33.0	15.0
	LDDT	2	34.4	0.659	8,481,150	266.1	120.7
	with VMT	3	36.1	0.663	9,404,115	296.9	134.7
	mix of	4	39.0	0.672	6,646,476	212.7	96.5
	2.2%	5	42.6	0.698	3,589,096	119.3	54.1
		1	30.3	12.407	1,043,964	2,595.4	1,177.3
	HDDV	2	34.4	12.331	8,481,150	20,955.6	9,505.5
	with VMT	3	36.1	12.386	9,404,115	23,339.8	10,586.9
	mix of	4	39.0	12.537	6,646,476	16,696.8	7,573.7
	9.1%	5	42.6	12.937	3,589,096	9,303.9	4,220.3
		1	30.3	1.140	1,043,964	13.4	6.1
	MC	2	34.4	1.170	8,481,150	111.6	50.6
	with VMT	3	36.1	1.190	9,404,115	125.8	57.1
	mix of	4	39.0	1.200	6,646,476	89.7	40.7
	0.5%	5	42.6	1.220	3,589,096	49.2	22.3

Table 5.5–6. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.223	1,005,113	1,221.8	554.2
	LDGV	2	19.1	1.202	2,618,198	3,127.5	1,418.6
	with VMT	3	24.4	1.107	1,626,393	1,789.7	811.8
	mix of	4	24.7	1.103	837,711	918.4	416.6
	45.1%	5	28.2	1.059	2,295,304	2,415.5	1,095.7
		1	18.2	1.411	1,005,113	882.0	400.1
	LDGT1	2	19.1	1.392	2,618,198	2,266.4	1,028.0
	with VMT	3	24.4	1.307	1,626,393	1,322.2	599.8
	mix of	4	24.7	1.303	837,711	678.9	308.0
	28.2%	5	28.2	1.265	2,295,304	1,805.7	819.1
		1	18.2	1.744	1,005,113	431.1	195.6
	LDGT2	2	19.1	1.720	2,618,198	1,108.1	502.7
	with VMT	3	24.4	1.617	1,626,393	647.0	293.5
	mix of	4	24.7	1.612	837,711	332.2	150.7
	11.2%	5	28.2	1.566	2,295,304	884.0	401.0
		1	18.2	4.058	1,005,113	320.1	145.2
	HDGV	2	19.1	4.086	2,618,198	839.5	380.8
	with VMT	3	24.4	4.274	1,626,393	545.5	247.4
	mix of	4	24.7	4.283	837,711	281.6	127.7
	3.6%	5	28.2	4.415	2,295,304	795.3	360.7
		1	18.2	1.173	1,005,113	5.7	2.6
	LDDV	2	19.1	1.152	2,618,198	14.6	6.6
	with VMT	3	24.4	1.058	1,626,393	8.3	3.8
	mix of	4	24.7	1.054	837,711	4.3	1.9
	0.2%	5	28.2	1.020	2,295,304	11.4	5.2
	1	18.2	0.777	1,005,113	37.2	16.9	
LDDT	2	19.1	0.763	2,618,198	95.1	43.1	
with VMT	3	24.4	0.699	1,626,393	54.1	24.6	
mix of	4	24.7	0.697	837,711	27.8	12.6	
2.2%	5	28.2	0.674	2,295,304	73.7	33.4	
	1	18.2	14.146	1,005,113	2,849.0	1,292.3	
HDDV	2	19.1	13.932	2,618,198	7,309.1	3,315.4	
with VMT	3	24.4	12.953	1,626,393	4,221.3	1,914.8	
mix of	4	24.7	12.910	837,711	2,167.0	983.0	
9.1%	5	28.2	12.558	2,295,304	5,775.7	2,619.9	
	1	18.2	1.000	1,005,113	11.3	5.1	
MC	2	19.1	1.010	2,618,198	29.7	13.5	
with VMT	3	24.4	1.070	1,626,393	19.6	8.9	
mix of	4	24.7	1.080	837,711	10.2	4.6	
0.5%	5	28.2	1.120	2,295,304	28.9	13.1	

Table 5.5–6. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.402	187,437	261.2	118.5
	LDGV	2	12.9	1.402	1,911,491	2,663.9	1,208.3
	with VMT	3	12.9	1.402	2,461,963	3,431.1	1,556.3
	mix of	4	12.9	1.402	1,621,930	2,260.4	1,025.3
	45.1%	5	12.9	1.402	1,365,660	1,903.2	863.3
		1	12.9	1.576	187,437	183.7	83.3
	LDGT1	2	12.9	1.576	1,911,491	1,873.8	850.0
	with VMT	3	12.9	1.576	2,461,963	2,413.5	1,094.7
	mix of	4	12.9	1.576	1,621,930	1,590.0	721.2
	28.2%	5	12.9	1.576	1,365,660	1,338.8	607.3
		1	12.9	1.942	187,437	89.5	40.6
	LDGT2	2	12.9	1.942	1,911,491	913.1	414.2
	with VMT	3	12.9	1.942	2,461,963	1,176.0	533.4
	mix of	4	12.9	1.942	1,621,930	774.8	351.4
	11.2%	5	12.9	1.942	1,365,660	652.3	295.9
		1	12.9	3.872	187,437	57.0	25.8
	HDGV	2	12.9	3.872	1,911,491	580.8	263.4
	with VMT	3	12.9	3.872	2,461,963	748.0	339.3
	mix of	4	12.9	3.872	1,621,930	492.8	223.5
	3.6%	5	12.9	3.872	1,365,660	414.9	188.2
	1	12.9	1.331	187,437	1.2	0.5	
LDDV	2	12.9	1.331	1,911,491	12.3	5.6	
with VMT	3	12.9	1.331	2,461,963	15.9	7.2	
mix of	4	12.9	1.331	1,621,930	10.5	4.7	
0.2%	5	12.9	1.331	1,365,660	8.8	4.0	
	1	12.9	0.883	187,437	7.9	3.6	
LDDT	2	12.9	0.883	1,911,491	80.4	36.5	
with VMT	3	12.9	0.883	2,461,963	103.5	47.0	
mix of	4	12.9	0.883	1,621,930	68.2	30.9	
2.2%	5	12.9	0.883	1,365,660	57.4	26.0	
	1	12.9	15.790	187,437	593.0	269.0	
HDDV	2	12.9	15.790	1,911,491	6,047.9	2,743.3	
with VMT	3	12.9	15.790	2,461,963	7,789.5	3,533.3	
mix of	4	12.9	15.790	1,621,930	5,131.7	2,327.7	
9.1%	5	12.9	15.790	1,365,660	4,320.9	1,960.0	
	1	12.9	0.960	187,437	2.0	0.9	
MC	2	12.9	0.960	1,911,491	20.6	9.4	
with VMT	3	12.9	0.960	2,461,963	26.6	12.1	
mix of	4	12.9	0.960	1,621,930	17.5	7.9	
0.5%	5	12.9	0.960	1,365,660	14.7	6.7	

Table 5.5–7. Daily NO_x emissions in the ozone nonattainment area by vehicle class, facility type and area type (annual average day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY		1	59.7	0.964	1,129,051	1,082.0	490.8
	LDGV	2	60.3	0.966	9,046,583	8,686.1	3,940.0
	with VMT	3	63.2	0.968	6,240,489	6,001.1	2,722.1
	mix of	4	64.8	0.968	4,525,653	4,352.1	1,974.1
	45.1%	5	64.2	0.968	2,678,544	2,575.8	1,168.4
		1	59.7	1.188	1,129,051	834.6	378.6
	LDGT1	2	60.3	1.191	9,046,583	6,700.8	3,039.5
	with VMT	3	63.2	1.193	6,240,489	4,630.1	2,100.2
	mix of	4	64.8	1.193	4,525,653	3,357.8	1,523.1
	28.2%	5	64.2	1.193	2,678,544	1,987.3	901.5
		1	59.7	1.486	1,129,051	412.6	187.2
	LDGT2	2	60.3	1.488	9,046,583	3,312.5	1,502.5
	with VMT	3	63.2	1.490	6,240,489	2,287.9	1,037.8
	mix of	4	64.8	1.490	4,525,653	1,659.2	752.6
	11.2%	5	64.2	1.490	2,678,544	982.0	445.4
		1	59.7	5.537	1,129,051	490.6	222.5
	HDGV	2	60.3	5.560	9,046,583	3,947.2	1,790.5
	with VMT	3	63.2	5.575	6,240,489	2,730.3	1,238.4
	mix of	4	64.8	5.575	4,525,653	1,980.0	898.1
	3.6%	5	64.2	5.575	2,678,544	1,171.9	531.6
		1	59.7	1.787	1,129,051	9.8	4.4
	LDDV	2	60.3	1.832	9,046,583	80.4	36.5
	with VMT	3	63.2	1.862	6,240,489	56.4	25.6
	mix of	4	64.8	1.862	4,525,653	40.9	18.5
	0.2%	5	64.2	1.862	2,678,544	24.2	11.0
	1	59.7	1.180	1,129,051	63.4	28.8	
LDDT	2	60.3	1.210	9,046,583	521.2	236.4	
with VMT	3	63.2	1.230	6,240,489	365.5	165.8	
mix of	4	64.8	1.230	4,525,653	265.0	120.2	
2.2%	5	64.2	1.230	2,678,544	156.9	71.2	
	1	59.7	23.357	1,129,051	5,284.2	2,396.9	
HDDV	2	60.3	23.825	9,046,583	43,187.5	19,589.8	
with VMT	3	63.2	24.130	6,240,489	30,173.0	13,686.5	
mix of	4	64.8	24.130	4,525,653	21,881.7	9,925.5	
9.1%	5	64.2	24.130	2,678,544	12,950.8	5,874.5	
	1	59.7	1.680	1,129,051	21.3	9.7	
MC	2	60.3	1.699	9,046,583	172.8	78.4	
with VMT	3	63.2	1.710	6,240,489	120.0	54.4	
mix of	4	64.8	1.710	4,525,653	87.0	39.5	
0.5%	5	64.2	1.710	2,678,544	51.5	23.4	

Table 5.5-7. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	0.900	1,087,462	972.9	441.3
PRINCIPAL	LDGV	2	34.4	0.883	8,834,531	7,755.4	3,517.9
ARTERIALS	with VMT	3	36.1	0.883	9,795,953	8,600.4	3,901.1
and	mix of	4	39.0	0.884	6,923,412	6,080.5	2,758.1
MINOR	45.1%	5	42.6	0.893	2,670,291	2,369.6	1,074.9
ARTERIALS		1	30.3	1.088	1,087,462	736.1	333.9
	LDGT1	2	34.4	1.076	8,834,531	5,914.5	2,682.8
	with VMT	3	36.1	1.078	9,795,953	6,568.5	2,979.5
	mix of	4	39.0	1.080	6,923,412	4,650.5	2,109.5
	28.2%	5	42.6	1.092	2,670,291	1,814.6	823.1
		1	30.3	1.380	1,087,462	369.2	167.5
	LDGT2	2	34.4	1.366	8,834,531	2,969.5	1,346.9
	with VMT	3	36.1	1.368	9,795,953	3,296.2	1,495.2
	mix of	4	39.0	1.369	6,923,412	2,331.2	1,057.4
	11.2%	5	42.6	1.382	2,670,291	907.5	411.7
		1	30.3	4.426	1,087,462	377.7	171.3
	HDGV	2	34.4	4.573	8,834,531	3,170.5	1,438.1
	with VMT	3	36.1	4.635	9,795,953	3,563.3	1,616.3
	mix of	4	39.0	4.738	6,923,412	2,574.5	1,167.8
	3.6%	5	42.6	4.868	2,670,291	1,020.2	462.7
		1	30.3	1.005	1,087,462	5.3	2.4
	LDDV	2	34.4	0.997	8,834,531	42.7	19.4
	with VMT	3	36.1	1.002	9,795,953	47.6	21.6
	mix of	4	39.0	1.017	6,923,412	34.1	15.5
	0.2%	5	42.6	1.056	2,670,291	13.7	6.2
		1	30.3	0.658	1,087,462	34.1	15.5
	LDDT	2	34.4	0.653	8,834,531	274.7	124.6
	with VMT	3	36.1	0.657	9,795,953	306.3	138.9
	mix of	4	39.0	0.666	6,923,412	219.5	99.6
	2.2%	5	42.6	0.692	2,670,291	88.0	39.9
		1	30.3	13.045	1,087,462	2,842.5	1,289.4
	HDDV	2	34.4	12.970	8,834,531	22,959.1	10,414.2
	with VMT	3	36.1	13.024	9,795,953	25,565.2	11,596.4
	mix of	4	39.0	12.429	6,923,412	17,242.6	7,821.3
	9.1%	5	42.6	12.827	2,670,291	6,863.2	3,113.1
		1	30.3	1.172	1,087,462	14.3	6.5
	MC	2	34.4	1.209	8,834,531	120.1	54.5
	with VMT	3	36.1	1.220	9,795,953	134.3	60.9
	mix of	4	39.0	1.238	6,923,412	96.4	43.7
	0.5%	5	42.6	1.257	2,670,291	37.7	17.1

Table 5.5–7. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.037	1,046,993	1,079.1	489.5
	LDGV	2	19.1	1.021	2,727,290	2,768.3	1,255.7
	with VMT	3	24.4	0.950	1,694,159	1,599.7	725.6
	mix of	4	24.7	0.947	872,616	821.3	372.5
	45.1%	5	28.2	0.914	955,062	867.9	393.7
		1	18.2	1.223	1,046,993	796.8	361.4
	LDGT1	2	19.1	1.207	2,727,290	2,047.9	928.9
	with VMT	3	24.4	1.136	1,694,159	1,197.1	543.0
	mix of	4	24.7	1.133	872,616	614.9	278.9
	28.2%	5	28.2	1.101	955,062	653.9	296.6
		1	18.2	1.548	1,046,993	398.7	180.9
	LDGT2	2	19.1	1.528	2,727,290	1,025.4	465.1
	with VMT	3	24.4	1.440	1,694,159	600.0	272.2
	mix of	4	24.7	1.436	872,616	308.2	139.8
	11.2%	5	28.2	1.396	955,062	328.0	148.8
		1	18.2	4.004	1,046,993	328.9	149.2
	HDGV	2	19.1	4.031	2,727,290	862.8	391.3
	with VMT	3	24.4	4.217	1,694,159	560.7	254.3
	mix of	4	24.7	4.226	872,616	289.4	131.3
	3.6%	5	28.2	4.356	955,062	326.5	148.1
		1	18.2	1.172	1,046,993	6.0	2.7
	LDDV	2	19.1	1.151	2,727,290	15.2	6.9
	with VMT	3	24.4	1.057	1,694,159	8.7	3.9
	mix of	4	24.7	1.053	872,616	4.5	2.0
	0.2%	5	28.2	1.019	955,062	4.7	2.1
	1	18.2	0.770	1,046,993	38.4	17.4	
LDDT	2	19.1	0.756	2,727,290	98.2	44.5	
with VMT	3	24.4	0.693	1,694,159	55.9	25.4	
mix of	4	24.7	0.691	872,616	28.7	13.0	
2.2%	5	28.2	0.668	955,062	30.4	13.8	
	1	18.2	14.028	1,046,993	2,942.9	1,334.9	
HDDV	2	19.1	13.815	2,727,290	7,549.4	3,424.4	
with VMT	3	24.4	12.843	1,694,159	4,359.7	1,977.6	
mix of	4	24.7	12.800	872,616	2,238.1	1,015.2	
9.1%	5	28.2	12.450	955,062	2,382.6	1,080.8	
	1	18.2	1.030	1,046,993	12.1	5.5	
MC	2	19.1	1.039	2,727,290	31.9	14.5	
with VMT	3	24.4	1.101	1,694,159	21.0	9.5	
mix of	4	24.7	1.107	872,616	10.9	4.9	
0.5%	5	28.2	1.148	955,062	12.3	5.6	

Table 5.5–7. Daily NO_x emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.173	195,247	227.7	103.3
	LDGV	2	12.9	1.173	1,991,136	2,321.7	1,053.1
	with VMT	3	12.9	1.173	2,564,545	2,990.3	1,356.4
	mix of	4	12.9	1.173	1,689,510	1,970.0	893.6
	45.1%	5	12.9	1.173	855,772	997.8	452.6
		1	12.9	1.362	195,247	165.5	75.1
	LDGT1	2	12.9	1.362	1,991,136	1,687.4	765.4
	with VMT	3	12.9	1.362	2,564,545	2,173.3	985.8
	mix of	4	12.9	1.362	1,689,510	1,431.8	649.5
	28.2%	5	12.9	1.362	855,772	725.2	329.0
		1	12.9	1.721	195,247	82.6	37.5
	LDGT2	2	12.9	1.721	1,991,136	842.8	382.3
	with VMT	3	12.9	1.721	2,564,545	1,085.5	492.4
	mix of	4	12.9	1.721	1,689,510	715.1	324.4
	11.2%	5	12.9	1.721	855,772	362.2	164.3
		1	12.9	3.820	195,247	58.5	26.5
	HDGV	2	12.9	3.820	1,991,136	596.8	270.7
	with VMT	3	12.9	3.820	2,564,545	768.7	348.7
	mix of	4	12.9	3.820	1,689,510	506.4	229.7
	3.6%	5	12.9	3.820	855,772	256.5	116.4
		1	12.9	1.330	195,247	1.3	0.6
	LDDV	2	12.9	1.330	1,991,136	12.8	5.8
	with VMT	3	12.9	1.330	2,564,545	16.5	7.5
	mix of	4	12.9	1.330	1,689,510	10.9	4.9
	0.2%	5	12.9	1.330	855,772	5.5	2.5
	1	12.9	0.875	195,247	8.1	3.7	
LDDT	2	12.9	0.875	1,991,136	83.0	37.6	
with VMT	3	12.9	0.875	2,564,545	106.8	48.5	
mix of	4	12.9	0.875	1,689,510	70.4	31.9	
2.2%	5	12.9	0.875	855,772	35.7	16.2	
	1	12.9	15.660	195,247	612.7	277.9	
HDDV	2	12.9	15.660	1,991,136	6,248.1	2,834.1	
with VMT	3	12.9	15.660	2,564,545	8,047.4	3,650.3	
mix of	4	12.9	15.660	1,689,510	5,301.6	2,404.8	
9.1%	5	12.9	15.660	855,772	2,685.4	1,218.1	
	1	12.9	0.990	195,247	2.2	1.0	
MC	2	12.9	0.990	1,991,136	22.2	10.1	
with VMT	3	12.9	0.990	2,564,545	28.5	12.9	
mix of	4	12.9	0.990	1,689,510	18.8	8.5	
0.5%	5	12.9	0.990	855,772	9.5	4.3	

Table 5.5–8. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (annual average day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	0.906	1,129,051	1,016.3	461.0
		2	60.3	0.904	9,046,583	8,129.5	3,687.5
		3	63.2	0.903	6,240,489	5,602.9	2,541.5
		4	64.8	0.903	4,525,653	4,063.3	1,843.1
		5	64.2	0.903	5,662,224	5,083.7	2,306.0
	LDGT1 with VMT mix of 28.2%	1	59.7	1.062	1,129,051	745.5	338.2
		2	60.3	1.060	9,046,583	5,962.5	2,704.6
		3	63.2	1.058	6,240,489	4,108.0	1,863.4
		4	64.8	1.058	4,525,653	2,979.1	1,351.3
		5	64.2	1.058	5,662,224	3,727.3	1,690.7
	LDGT2 with VMT mix of 11.2%	1	59.7	1.254	1,129,051	348.4	158.0
		2	60.3	1.252	9,046,583	2,785.7	1,263.6
		3	63.2	1.250	6,240,489	1,918.7	870.3
		4	64.8	1.250	4,525,653	1,391.5	631.2
		5	64.2	1.250	5,662,224	1,740.9	789.7
	HDGV with VMT mix of 3.6%	1	59.7	0.802	1,129,051	71.1	32.2
		2	60.3	0.802	9,046,583	569.3	258.2
		3	63.2	0.802	6,240,489	392.5	178.0
		4	64.8	0.802	4,525,653	284.7	129.1
		5	64.2	0.802	5,662,224	356.1	161.5
	LDDV with VMT mix of 0.2%	1	59.7	0.398	1,129,051	2.2	1.0
		2	60.3	0.398	9,046,583	17.5	7.9
		3	63.2	0.398	6,240,489	12.0	5.5
		4	64.8	0.398	4,525,653	8.7	4.0
		5	64.2	0.398	5,662,224	10.9	5.0
LDDT with VMT mix of 2.2%	1	59.7	0.264	1,129,051	14.2	6.4	
	2	60.3	0.264	9,046,583	113.6	51.5	
	3	63.2	0.264	6,240,489	78.4	35.5	
	4	64.8	0.264	4,525,653	56.8	25.8	
	5	64.2	0.264	5,662,224	71.1	32.2	
HDDV with VMT mix of 9.1%	1	59.7	0.390	1,129,051	88.2	40.0	
	2	60.3	0.390	9,046,583	707.0	320.7	
	3	63.2	0.390	6,240,489	487.7	221.2	
	4	64.8	0.390	4,525,653	353.7	160.4	
	5	64.2	0.390	5,662,224	442.5	200.7	
MC with VMT mix of 0.5%	1	59.7	2.670	1,129,051	33.9	15.4	
	2	60.3	2.712	9,046,583	275.8	125.1	
	3	63.2	2.741	6,240,489	192.3	87.2	
	4	64.8	2.741	4,525,653	139.5	63.3	
	5	64.2	2.741	5,662,224	174.5	79.2	

Table 5.5–8. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	1.040	1,087,462	1,124.5	510.1
PRINCIPAL	LDGV	2	34.4	1.003	8,834,531	8,806.5	3,994.6
ARTERIALS	with VMT	3	36.1	0.992	9,795,953	9,656.8	4,380.3
and	mix of	4	39.0	0.974	6,923,412	6,703.3	3,040.6
MINOR	45.1%	5	42.6	0.957	3,738,642	3,557.3	1,613.6
ARTERIALS		1	30.3	1.226	1,087,462	829.3	376.2
	LDGT1	2	34.4	1.183	8,834,531	6,499.2	2,948.1
	with VMT	3	36.1	1.170	9,795,953	7,128.5	3,233.5
	mix of	4	39.0	1.150	6,923,412	4,952.5	2,246.4
	28.2%	5	42.6	1.130	3,738,642	2,628.0	1,192.1
		1	30.3	1.469	1,087,462	392.9	178.2
	LDGT2	2	34.4	1.412	8,834,531	3,068.8	1,392.0
	with VMT	3	36.1	1.396	9,795,953	3,363.9	1,525.9
	mix of	4	39.0	1.372	6,923,412	2,336.1	1,059.7
	11.2%	5	42.6	1.347	3,738,642	1,238.9	562.0
		1	30.3	1.181	1,087,462	100.8	45.7
	HDGV	2	34.4	1.067	8,834,531	740.0	335.6
	with VMT	3	36.1	1.029	9,795,953	791.3	359.0
	mix of	4	39.0	0.974	6,923,412	529.0	240.0
	3.6%	5	42.6	0.919	3,738,642	269.6	122.3
		1	30.3	0.505	1,087,462	2.7	1.2
	LDDV	2	34.4	0.473	8,834,531	20.3	9.2
	with VMT	3	36.1	0.462	9,795,953	21.9	10.0
	mix of	4	39.0	0.445	6,923,412	14.9	6.8
	0.2%	5	42.6	0.429	3,738,642	7.8	3.5
		1	30.3	0.352	1,087,462	18.2	8.3
	LDDT	2	34.4	0.326	8,834,531	136.9	62.1
	with VMT	3	36.1	0.316	9,795,953	147.5	66.9
	mix of	4	39.0	0.303	6,923,412	99.9	45.3
	2.2%	5	42.6	0.289	3,738,642	51.5	23.4
		1	30.3	0.594	1,087,462	129.4	58.7
	HDDV	2	34.4	0.533	8,834,531	943.0	427.7
	with VMT	3	36.1	0.512	9,795,953	1,005.0	455.9
	mix of	4	39.0	0.481	6,923,412	666.6	302.4
	9.1%	5	42.6	0.449	3,738,642	336.4	152.6
		1	30.3	2.413	1,087,462	29.5	13.4
	MC	2	34.4	2.302	8,834,531	228.6	103.7
	with VMT	3	36.1	2.265	9,795,953	249.4	113.1
	mix of	4	39.0	2.209	6,923,412	171.9	78.0
	0.5%	5	42.6	2.162	3,738,642	90.9	41.2

Table 5.5–8. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	1.249	1,046,993	1,299.6	589.5
	LDGV	2	19.1	1.222	2,727,290	3,312.0	1,502.3
	with VMT	3	24.4	1.112	1,694,159	1,873.2	849.7
	mix of	4	24.7	1.108	872,616	960.7	435.8
	45.1%	5	28.2	1.062	2,390,942	2,522.6	1,144.3
		1	18.2	1.461	1,046,993	951.6	431.7
	LDGT1	2	19.1	1.427	2,727,290	2,421.0	1,098.2
	with VMT	3	24.4	1.302	1,694,159	1,372.2	622.4
	mix of	4	24.7	1.297	872,616	703.9	319.3
	28.2%	5	28.2	1.248	2,390,942	1,856.3	842.0
		1	18.2	1.758	1,046,993	452.7	205.3
	LDGT2	2	19.1	1.717	2,727,290	1,152.0	522.5
	with VMT	3	24.4	1.563	1,694,159	651.5	295.5
	mix of	4	24.7	1.557	872,616	334.2	151.6
	11.2%	5	28.2	1.496	2,390,942	880.1	399.2
		1	18.2	1.841	1,046,993	151.2	68.6
	HDGV	2	19.1	1.764	2,727,290	377.6	171.3
	with VMT	3	24.4	1.421	1,694,159	188.9	85.7
	mix of	4	24.7	1.406	872,616	96.3	43.7
	3.6%	5	28.2	1.255	2,390,942	235.4	106.8
	1	18.2	0.658	1,046,993	3.3	1.5	
LDDV	2	19.1	0.644	2,727,290	8.5	3.9	
with VMT	3	24.4	0.567	1,694,159	4.7	2.1	
mix of	4	24.7	0.563	872,616	2.4	1.1	
0.2%	5	28.2	0.524	2,390,942	6.1	2.8	
	1	18.2	0.478	1,046,993	23.8	10.8	
LDDT	2	19.1	0.466	2,727,290	60.5	27.4	
with VMT	3	24.4	0.403	1,694,159	32.5	14.7	
mix of	4	24.7	0.400	872,616	16.6	7.5	
2.2%	5	28.2	0.367	2,390,942	41.8	19.0	
	1	18.2	0.887	1,046,993	186.2	84.4	
HDDV	2	19.1	0.859	2,727,290	469.5	213.0	
with VMT	3	24.4	0.712	1,694,159	241.8	109.7	
mix of	4	24.7	0.705	872,616	123.3	55.9	
9.1%	5	28.2	0.631	2,390,942	302.4	137.2	
	1	18.2	2.947	1,046,993	34.7	15.7	
MC	2	19.1	2.891	2,727,290	88.7	40.2	
with VMT	3	24.4	2.626	1,694,159	50.0	22.7	
mix of	4	24.7	2.613	872,616	25.6	11.6	
0.5%	5	28.2	2.481	2,390,942	66.7	30.2	

Table 5.5–8. Daily NO_x emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	1.474	195,247	286.1	129.8
	LDGV	2	12.9	1.474	1,991,136	2,917.2	1,323.2
	with VMT	3	12.9	1.474	2,564,545	3,757.3	1,704.3
	mix of	4	12.9	1.474	1,689,510	2,475.3	1,122.8
	45.1%	5	12.9	1.474	1,422,562	2,084.2	945.4
		1	12.9	1.743	195,247	211.6	96.0
	LDGT1	2	12.9	1.743	1,991,136	2,158.3	979.0
	with VMT	3	12.9	1.743	2,564,545	2,779.9	1,260.9
	mix of	4	12.9	1.743	1,689,510	1,831.4	830.7
	28.2%	5	12.9	1.743	1,422,562	1,542.0	699.5
		1	12.9	2.096	195,247	100.7	45.7
	LDGT2	2	12.9	2.096	1,991,136	1,026.6	465.7
	with VMT	3	12.9	2.096	2,564,545	1,322.2	599.8
	mix of	4	12.9	2.096	1,689,510	871.1	395.1
	11.2%	5	12.9	2.096	1,422,562	733.4	332.7
		1	12.9	2.457	195,247	37.6	17.1
	HDGV	2	12.9	2.457	1,991,136	384.0	174.2
	with VMT	3	12.9	2.457	2,564,545	494.5	224.3
	mix of	4	12.9	2.457	1,689,510	325.8	147.8
	3.6%	5	12.9	2.457	1,422,562	274.3	124.4
		1	12.9	0.768	195,247	0.7	0.3
	LDDV	2	12.9	0.768	1,991,136	7.4	3.4
	with VMT	3	12.9	0.768	2,564,545	9.6	4.3
	mix of	4	12.9	0.768	1,689,510	6.3	2.9
	0.2%	5	12.9	0.768	1,422,562	5.3	2.4
	1	12.9	0.568	195,247	5.3	2.4	
LDDT	2	12.9	0.568	1,991,136	53.8	24.4	
with VMT	3	12.9	0.568	2,564,545	69.3	31.5	
mix of	4	12.9	0.568	1,689,510	45.7	20.7	
2.2%	5	12.9	0.568	1,422,562	38.5	17.4	
	1	12.9	1.097	195,247	42.9	19.5	
HDDV	2	12.9	1.097	1,991,136	437.8	198.6	
with VMT	3	12.9	1.097	2,564,545	563.8	255.8	
mix of	4	12.9	1.097	1,689,510	371.4	168.5	
9.1%	5	12.9	1.097	1,422,562	312.8	141.9	
	1	12.9	3.486	195,247	7.7	3.5	
MC	2	12.9	3.486	1,991,136	78.0	35.4	
with VMT	3	12.9	3.486	2,564,545	100.5	45.6	
mix of	4	12.9	3.486	1,689,510	66.2	30.0	
0.5%	5	12.9	3.486	1,422,562	55.8	25.3	

Table 5.5–9. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY		1	59.7	14.817	1,083,889	15,962.9	7,240.8
	LDGV	2	60.3	14.907	8,684,720	128,680.5	58,369.5
	with VMT	3	63.2	14.968	5,990,869	89,128.2	40,428.6
	mix of	4	64.8	14.968	4,344,627	64,636.5	29,319.1
	45.1%	5	64.2	14.968	2,571,402	38,255.6	17,352.8
		1	59.7	18.240	1,083,889	12,298.5	5,578.6
	LDGT1	2	60.3	18.331	8,684,720	99,033.4	44,921.6
	with VMT	3	63.2	18.392	5,990,869	68,541.7	31,090.5
	mix of	4	64.8	18.392	4,344,627	49,707.0	22,547.1
	28.2%	5	64.2	18.392	2,571,402	29,419.5	13,344.7
		1	59.7	20.799	1,083,889	5,545.8	2,515.6
	LDGT2	2	60.3	20.899	8,684,720	44,650.1	20,253.3
	with VMT	3	63.2	20.960	5,990,869	30,890.0	14,011.7
	mix of	4	64.8	20.960	4,344,627	22,401.7	10,161.4
	11.2%	5	64.2	20.960	2,571,402	13,258.6	6,014.1
		1	59.7	15.429	1,083,889	1,312.4	595.3
	HDGV	2	60.3	15.804	8,684,720	10,771.2	4,885.8
	with VMT	3	63.2	16.058	5,990,869	7,549.2	3,424.3
	mix of	4	64.8	16.058	4,344,627	5,474.8	2,483.4
	3.6%	5	64.2	16.058	2,571,402	3,240.3	1,469.8
		1	59.7	1.236	1,083,889	6.5	2.9
	LDDV	2	60.3	1.247	8,684,720	52.5	23.8
	with VMT	3	63.2	1.254	5,990,869	36.4	16.5
	mix of	4	64.8	1.254	4,344,627	26.4	12.0
	0.2%	5	64.2	1.254	2,571,402	15.6	7.1
	1	59.7	0.667	1,083,889	34.4	15.6	
LDDT	2	60.3	0.674	8,684,720	278.7	126.4	
with VMT	3	63.2	0.678	5,990,869	193.4	87.7	
mix of	4	64.8	0.678	4,344,627	140.3	63.6	
2.2%	5	64.2	0.678	2,571,402	83.0	37.7	
	1	59.7	2.493	1,083,889	541.4	245.6	
HDDV	2	60.3	2.533	8,684,720	4,408.0	1,999.5	
with VMT	3	63.2	2.559	5,990,869	3,071.9	1,393.4	
mix of	4	64.8	2.559	4,344,627	2,227.8	1,010.5	
9.1%	5	64.2	2.559	2,571,402	1,318.5	598.1	
	1	59.7	27.060	1,083,889	329.7	149.6	
MC	2	60.3	28.260	8,684,720	2,759.2	1,251.6	
with VMT	3	63.2	29.050	5,990,869	1,956.5	887.5	
mix of	4	64.8	29.050	4,344,627	1,418.9	643.6	
0.5%	5	64.2	29.050	2,571,402	839.8	380.9	

Table 5.5–9. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	10.275	1,043,964	10,661.5	4,836.1
PRINCIPAL	LDGV	2	34.4	10.492	8,481,150	88,447.7	40,119.9
ARTERIALS	with VMT	3	36.1	10.683	9,404,115	99,856.8	45,295.1
and	mix of	4	39.0	11.067	6,646,476	73,112.9	33,164.0
MINOR	45.1%	5	42.6	11.561	2,563,479	29,458.0	13,362.1
ARTERIALS		1	30.3	13.509	1,043,964	8,772.7	3,979.3
	LDGT1	2	34.4	13.805	8,481,150	72,834.8	33,037.9
	with VMT	3	36.1	14.025	9,404,115	82,048.1	37,217.0
	mix of	4	39.0	14.448	6,646,476	59,735.4	27,096.0
	28.2%	5	42.6	14.981	2,563,479	23,889.8	10,836.4
		1	30.3	15.985	1,043,964	4,105.2	1,862.1
	LDGT2	2	34.4	16.258	8,481,150	33,920.9	15,386.5
	with VMT	3	36.1	16.478	9,404,115	38,121.3	17,291.8
	mix of	4	39.0	16.919	6,646,476	27,663.5	12,548.2
	11.2%	5	42.6	17.462	2,563,479	11,012.2	4,995.1
		1	30.3	12.989	1,043,964	1,064.2	482.7
	HDGV	2	34.4	11.653	8,481,150	7,755.6	3,518.0
	with VMT	3	36.1	11.269	9,404,115	8,316.1	3,772.2
	mix of	4	39.0	10.773	6,646,476	5,618.9	2,548.7
	3.6%	5	42.6	10.489	2,563,479	2,110.2	957.2
		1	30.3	1.289	1,043,964	6.5	3.0
	LDDV	2	34.4	1.210	8,481,150	49.8	22.6
	with VMT	3	36.1	1.186	9,404,115	54.1	24.5
	mix of	4	39.0	1.153	6,646,476	37.2	16.9
	0.2%	5	42.6	1.126	2,563,479	14.0	6.3
		1	30.3	0.701	1,043,964	34.8	15.8
	LDDT	2	34.4	0.650	8,481,150	262.5	119.1
	with VMT	3	36.1	0.634	9,404,115	283.9	128.8
	mix of	4	39.0	0.612	6,646,476	193.7	87.9
	2.2%	5	42.6	0.595	2,563,479	72.6	32.9
		1	30.3	2.694	1,043,964	563.5	255.6
	HDDV	2	34.4	2.392	8,481,150	4,065.0	1,843.9
	with VMT	3	36.1	2.300	9,404,115	4,334.0	1,965.9
	mix of	4	39.0	2.172	6,646,476	2,892.7	1,312.1
	9.1%	5	42.6	2.072	2,563,479	1,064.3	482.8
		1	30.3	16.530	1,043,964	194.0	88.0
	MC	2	34.4	14.800	8,481,150	1,411.1	640.1
	with VMT	3	36.1	14.230	9,404,115	1,504.4	682.4
	mix of	4	39.0	13.400	6,646,476	1,001.3	454.2
	0.5%	5	42.6	12.640	2,563,479	364.3	165.2

Table 5.5–9. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	10.767	1,005,113	10,756.6	4,879.2
	LDGV	2	19.1	10.640	2,618,198	27,690.1	12,560.2
	with VMT	3	24.4	10.278	1,626,393	16,614.9	7,536.5
	mix of	4	24.7	10.266	837,711	8,548.2	3,877.5
	45.1%	5	28.2	10.249	916,860	9,339.9	4,236.6
		1	18.2	13.723	1,005,113	8,580.1	3,891.9
	LDGT1	2	19.1	13.616	2,618,198	22,176.3	10,059.2
	with VMT	3	24.4	13.392	1,626,393	13,549.0	6,145.8
	mix of	4	24.7	13.382	837,711	6,973.5	3,163.2
	28.2%	5	28.2	13.443	916,860	7,667.1	3,477.8
		1	18.2	16.474	1,005,113	4,073.5	1,847.8
	LDGT2	2	19.1	16.326	2,618,198	10,515.5	4,769.8
	with VMT	3	24.4	15.964	1,626,393	6,387.5	2,897.3
	mix of	4	24.7	15.944	837,711	3,285.7	1,490.4
	11.2%	5	28.2	15.950	916,860	3,597.7	1,631.9
		1	18.2	22.213	1,005,113	1,752.1	794.7
	HDGV	2	19.1	21.130	2,618,198	4,341.4	1,969.3
	with VMT	3	24.4	16.229	1,626,393	2,071.4	939.6
	mix of	4	24.7	16.017	837,711	1,052.9	477.6
	3.6%	5	28.2	13.971	916,860	1,005.2	456.0
		1	18.2	1.776	1,005,113	8.7	3.9
	LDDV	2	19.1	1.722	2,618,198	21.9	9.9
	with VMT	3	24.4	1.466	1,626,393	11.6	5.2
	mix of	4	24.7	1.455	837,711	5.9	2.7
	0.2%	5	28.2	1.343	916,860	6.0	2.7
	1	18.2	1.020	1,005,113	48.8	22.1	
LDDT	2	19.1	0.984	2,618,198	122.7	55.6	
with VMT	3	24.4	0.817	1,626,393	63.3	28.7	
mix of	4	24.7	0.810	837,711	32.3	14.7	
2.2%	5	28.2	0.737	916,860	32.2	14.6	
	1	18.2	4.559	1,005,113	918.2	416.5	
HDDV	2	19.1	4.350	2,618,198	2,282.1	1,035.2	
with VMT	3	24.4	3.373	1,626,393	1,099.2	498.6	
mix of	4	24.7	3.330	837,711	559.0	253.5	
9.1%	5	28.2	2.900	916,860	532.8	241.7	
	1	18.2	25.250	1,005,113	285.3	129.4	
MC	2	19.1	24.270	2,618,198	714.4	324.0	
with VMT	3	24.4	19.860	1,626,393	363.1	164.7	
mix of	4	24.7	19.670	837,711	185.2	84.0	
0.5%	5	28.2	17.570	916,860	181.1	82.1	

Table 5.5–9. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	11.810	187,437	2,200.3	998.0
	LDGV	2	12.9	11.810	1,911,491	22,438.4	10,178.1
	with VMT	3	12.9	11.810	2,461,963	28,900.3	13,109.2
	mix of	4	12.9	11.810	1,621,930	19,039.4	8,636.3
	45.1%	5	12.9	11.810	821,541	9,643.8	4,374.4
		1	12.9	14.665	187,437	1,709.9	775.6
	LDGT1	2	12.9	14.665	1,911,491	17,437.7	7,909.8
	with VMT	3	12.9	14.665	2,461,963	22,459.5	10,187.6
	mix of	4	12.9	14.665	1,621,930	14,796.2	6,711.6
	28.2%	5	12.9	14.665	821,541	7,494.6	3,399.5
		1	12.9	17.705	187,437	816.4	370.3
	LDGT2	2	12.9	17.705	1,911,491	8,325.5	3,776.5
	with VMT	3	12.9	17.705	2,461,963	10,723.1	4,864.0
	mix of	4	12.9	17.705	1,621,930	7,064.4	3,204.4
	11.2%	5	12.9	17.705	821,541	3,578.2	1,623.1
		1	12.9	30.858	187,437	453.9	205.9
	HDGV	2	12.9	30.858	1,911,491	4,628.9	2,099.7
	with VMT	3	12.9	30.858	2,461,963	5,962.0	2,704.3
	mix of	4	12.9	30.858	1,621,930	3,927.7	1,781.6
	3.6%	5	12.9	30.858	821,541	1,989.5	902.4
	1	12.9	2.205	187,437	2.0	0.9	
LDDV	2	12.9	2.205	1,911,491	20.4	9.3	
with VMT	3	12.9	2.205	2,461,963	26.3	11.9	
mix of	4	12.9	2.205	1,621,930	17.3	7.9	
0.2%	5	12.9	2.205	821,541	8.8	4.0	
	1	12.9	1.300	187,437	11.6	5.3	
LDDT	2	12.9	1.300	1,911,491	118.3	53.7	
with VMT	3	12.9	1.300	2,461,963	152.4	69.1	
mix of	4	12.9	1.300	1,621,930	100.4	45.5	
2.2%	5	12.9	1.300	821,541	50.9	23.1	
	1	12.9	6.199	187,437	232.8	105.6	
HDDV	2	12.9	6.199	1,911,491	2,374.3	1,077.0	
with VMT	3	12.9	6.199	2,461,963	3,058.1	1,387.2	
mix of	4	12.9	6.199	1,621,930	2,014.7	913.8	
9.1%	5	12.9	6.199	821,541	1,020.5	462.9	
	1	12.9	34.190	187,437	72.0	32.7	
MC	2	12.9	34.190	1,911,491	734.7	333.3	
with VMT	3	12.9	34.190	2,461,963	946.3	429.2	
mix of	4	12.9	34.190	1,621,930	623.4	282.8	
0.5%	5	12.9	34.190	821,541	315.8	143.2	

Table 5.5–10. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	14.817	1,083,889	15,962.9	7,240.8
		2	60.3	14.907	8,684,720	128,680.5	58,369.5
		3	63.2	14.968	5,990,869	89,128.2	40,428.6
		4	64.8	14.968	4,344,627	64,636.5	29,319.1
		5	64.2	14.968	5,435,735	80,869.3	36,682.3
	LDGT1 with VMT mix of 28.2%	1	59.7	18.240	1,083,889	12,298.5	5,578.6
		2	60.3	18.331	8,684,720	99,033.4	44,921.6
		3	63.2	18.392	5,990,869	68,541.7	31,090.5
		4	64.8	18.392	4,344,627	49,707.0	22,547.1
		5	64.2	18.392	5,435,735	62,190.4	28,209.5
	LDGT2 with VMT mix of 11.2%	1	59.7	20.799	1,083,889	5,545.8	2,515.6
		2	60.3	20.899	8,684,720	44,650.1	20,253.3
		3	63.2	20.960	5,990,869	30,890.0	14,011.7
		4	64.8	20.960	4,344,627	22,401.7	10,161.4
		5	64.2	20.960	5,435,735	28,027.7	12,713.3
	HDGV with VMT mix of 3.6%	1	59.7	15.429	1,083,889	1,312.4	595.3
		2	60.3	15.804	8,684,720	10,771.2	4,885.8
		3	63.2	16.058	5,990,869	7,549.2	3,424.3
		4	64.8	16.058	4,344,627	5,474.8	2,483.4
		5	64.2	16.058	5,435,735	6,849.7	3,107.0
	LDDV with VMT mix of 0.2%	1	59.7	1.236	1,083,889	6.5	2.9
		2	60.3	1.247	8,684,720	52.5	23.8
		3	63.2	1.254	5,990,869	36.4	16.5
		4	64.8	1.254	4,344,627	26.4	12.0
		5	64.2	1.254	5,435,735	33.1	15.0
LDDT with VMT mix of 2.2%	1	59.7	0.667	1,083,889	34.4	15.6	
	2	60.3	0.674	8,684,720	278.7	126.4	
	3	63.2	0.678	5,990,869	193.4	87.7	
	4	64.8	0.678	4,344,627	140.3	63.6	
	5	64.2	0.678	5,435,735	175.5	79.6	
HDDV with VMT mix of 9.1%	1	59.7	2.493	1,083,889	541.4	245.6	
	2	60.3	2.533	8,684,720	4,408.0	1,999.5	
	3	63.2	2.559	5,990,869	3,071.9	1,393.4	
	4	64.8	2.559	4,344,627	2,227.8	1,010.5	
	5	64.2	2.559	5,435,735	2,787.3	1,264.3	
MC with VMT mix of 0.5%	1	59.7	27.060	1,083,889	329.7	149.6	
	2	60.3	28.260	8,684,720	2,759.2	1,251.6	
	3	63.2	29.050	5,990,869	1,956.5	887.5	
	4	64.8	29.050	4,344,627	1,418.9	643.6	
	5	64.2	29.050	5,435,735	1,775.2	805.3	

Table 5.5–10. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	10.275	1,043,964	10,661.5	4,836.1
PRINCIPAL	LDGV	2	34.4	10.492	8,481,150	88,447.7	40,119.9
ARTERIALS	with VMT	3	36.1	10.683	9,404,115	99,856.8	45,295.1
and	mix of	4	39.0	11.067	6,646,476	73,112.9	33,164.0
MINOR	45.1%	5	42.6	11.561	3,589,096	41,243.8	18,708.2
ARTERIALS		1	30.3	13.509	1,043,964	8,772.7	3,979.3
	LDGT1	2	34.4	13.805	8,481,150	72,834.8	33,037.9
	with VMT	3	36.1	14.025	9,404,115	82,048.1	37,217.0
	mix of	4	39.0	14.448	6,646,476	59,735.4	27,096.0
	28.2%	5	42.6	14.981	3,589,096	33,447.8	15,171.9
		1	30.3	15.985	1,043,964	4,105.2	1,862.1
	LDGT2	2	34.4	16.258	8,481,150	33,920.9	15,386.5
	with VMT	3	36.1	16.478	9,404,115	38,121.3	17,291.8
	mix of	4	39.0	16.919	6,646,476	27,663.5	12,548.2
	11.2%	5	42.6	17.462	3,589,096	15,418.0	6,993.6
		1	30.3	12.989	1,043,964	1,064.2	482.7
	HDGV	2	34.4	11.653	8,481,150	7,755.6	3,518.0
	with VMT	3	36.1	11.269	9,404,115	8,316.1	3,772.2
	mix of	4	39.0	10.773	6,646,476	5,618.9	2,548.7
	3.6%	5	42.6	10.489	3,589,096	2,954.4	1,340.1
		1	30.3	1.289	1,043,964	6.5	3.0
	LDDV	2	34.4	1.210	8,481,150	49.8	22.6
	with VMT	3	36.1	1.186	9,404,115	54.1	24.5
	mix of	4	39.0	1.153	6,646,476	37.2	16.9
	0.2%	5	42.6	1.126	3,589,096	19.6	8.9
		1	30.3	0.701	1,043,964	34.8	15.8
	LDDT	2	34.4	0.650	8,481,150	262.5	119.1
	with VMT	3	36.1	0.634	9,404,115	283.9	128.8
	mix of	4	39.0	0.612	6,646,476	193.7	87.9
	2.2%	5	42.6	0.595	3,589,096	101.7	46.1
		1	30.3	2.694	1,043,964	563.5	255.6
	HDDV	2	34.4	2.392	8,481,150	4,065.0	1,843.9
	with VMT	3	36.1	2.300	9,404,115	4,334.0	1,965.9
	mix of	4	39.0	2.172	6,646,476	2,892.7	1,312.1
	9.1%	5	42.6	2.072	3,589,096	1,490.1	675.9
		1	30.3	16.530	1,043,964	194.0	88.0
	MC	2	34.4	14.800	8,481,150	1,411.1	640.1
	with VMT	3	36.1	14.230	9,404,115	1,504.4	682.4
	mix of	4	39.0	13.400	6,646,476	1,001.3	454.2
	0.5%	5	42.6	12.640	3,589,096	510.0	231.3

Table 5.5–10. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	10.767	1,005,113	10,756.6	4,879.2
	LDGV	2	19.1	10.640	2,618,198	27,690.1	12,560.2
	with VMT	3	24.4	10.278	1,626,393	16,614.9	7,536.5
	mix of	4	24.7	10.266	837,711	8,548.2	3,877.5
	45.1%	5	28.2	10.249	2,295,304	23,381.9	10,606.0
		1	18.2	13.723	1,005,113	8,580.1	3,891.9
	LDGT1	2	19.1	13.616	2,618,198	22,176.3	10,059.2
	with VMT	3	24.4	13.392	1,626,393	13,549.0	6,145.8
	mix of	4	24.7	13.382	837,711	6,973.5	3,163.2
	28.2%	5	28.2	13.443	2,295,304	19,194.1	8,706.4
		1	18.2	16.474	1,005,113	4,073.5	1,847.8
	LDGT2	2	19.1	16.326	2,618,198	10,515.5	4,769.8
	with VMT	3	24.4	15.964	1,626,393	6,387.5	2,897.3
	mix of	4	24.7	15.944	837,711	3,285.7	1,490.4
	11.2%	5	28.2	15.950	2,295,304	9,006.6	4,085.4
		1	18.2	22.213	1,005,113	1,752.1	794.7
	HDGV	2	19.1	21.130	2,618,198	4,341.4	1,969.3
	with VMT	3	24.4	16.229	1,626,393	2,071.4	939.6
	mix of	4	24.7	16.017	837,711	1,052.9	477.6
	3.6%	5	28.2	13.971	2,295,304	2,516.5	1,141.5
		1	18.2	1.776	1,005,113	8.7	3.9
	LDDV	2	19.1	1.722	2,618,198	21.9	9.9
	with VMT	3	24.4	1.466	1,626,393	11.6	5.2
	mix of	4	24.7	1.455	837,711	5.9	2.7
	0.2%	5	28.2	1.343	2,295,304	14.9	6.8
	1	18.2	1.020	1,005,113	48.8	22.1	
LDDT	2	19.1	0.984	2,618,198	122.7	55.6	
with VMT	3	24.4	0.817	1,626,393	63.3	28.7	
mix of	4	24.7	0.810	837,711	32.3	14.7	
2.2%	5	28.2	0.737	2,295,304	80.5	36.5	
	1	18.2	4.559	1,005,113	918.2	416.5	
HDDV	2	19.1	4.350	2,618,198	2,282.1	1,035.2	
with VMT	3	24.4	3.373	1,626,393	1,099.2	498.6	
mix of	4	24.7	3.330	837,711	559.0	253.5	
9.1%	5	28.2	2.900	2,295,304	1,333.8	605.0	
	1	18.2	25.250	1,005,113	285.3	129.4	
MC	2	19.1	24.270	2,618,198	714.4	324.0	
with VMT	3	24.4	19.860	1,626,393	363.1	164.7	
mix of	4	24.7	19.670	837,711	185.2	84.0	
0.5%	5	28.2	17.570	2,295,304	453.4	205.7	

Table 5.5–10. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (peak ozone season day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	11.810	187,437	2,200.3	998.0
	LDGV	2	12.9	11.810	1,911,491	22,438.4	10,178.1
	with VMT	3	12.9	11.810	2,461,963	28,900.3	13,109.2
	mix of	4	12.9	11.810	1,621,930	19,039.4	8,636.3
	45.1%	5	12.9	11.810	1,365,660	16,031.1	7,271.7
		1	12.9	14.665	187,437	1,709.9	775.6
	LDGT1	2	12.9	14.665	1,911,491	17,437.7	7,909.8
	with VMT	3	12.9	14.665	2,461,963	22,459.5	10,187.6
	mix of	4	12.9	14.665	1,621,930	14,796.2	6,711.6
	28.2%	5	12.9	14.665	1,365,660	12,458.3	5,651.1
		1	12.9	17.705	187,437	816.4	370.3
	LDGT2	2	12.9	17.705	1,911,491	8,325.5	3,776.5
	with VMT	3	12.9	17.705	2,461,963	10,723.1	4,864.0
	mix of	4	12.9	17.705	1,621,930	7,064.4	3,204.4
	11.2%	5	12.9	17.705	1,365,660	5,948.2	2,698.1
		1	12.9	30.858	187,437	453.9	205.9
	HDGV	2	12.9	30.858	1,911,491	4,628.9	2,099.7
	with VMT	3	12.9	30.858	2,461,963	5,962.0	2,704.3
	mix of	4	12.9	30.858	1,621,930	3,927.7	1,781.6
	3.6%	5	12.9	30.858	1,365,660	3,307.1	1,500.1
		1	12.9	2.205	187,437	2.0	0.9
	LDDV	2	12.9	2.205	1,911,491	20.4	9.3
	with VMT	3	12.9	2.205	2,461,963	26.3	11.9
	mix of	4	12.9	2.205	1,621,930	17.3	7.9
	0.2%	5	12.9	2.205	1,365,660	14.6	6.6
	1	12.9	1.300	187,437	11.6	5.3	
LDDT	2	12.9	1.300	1,911,491	118.3	53.7	
with VMT	3	12.9	1.300	2,461,963	152.4	69.1	
mix of	4	12.9	1.300	1,621,930	100.4	45.5	
2.2%	5	12.9	1.300	1,365,660	84.5	38.3	
	1	12.9	6.199	187,437	232.8	105.6	
HDDV	2	12.9	6.199	1,911,491	2,374.3	1,077.0	
with VMT	3	12.9	6.199	2,461,963	3,058.1	1,387.2	
mix of	4	12.9	6.199	1,621,930	2,014.7	913.8	
9.1%	5	12.9	6.199	1,365,660	1,696.3	769.5	
	1	12.9	34.190	187,437	72.0	32.7	
MC	2	12.9	34.190	1,911,491	734.7	333.3	
with VMT	3	12.9	34.190	2,461,963	946.3	429.2	
mix of	4	12.9	34.190	1,621,930	623.4	282.8	
0.5%	5	12.9	34.190	1,365,660	524.9	238.1	

Table 5.5–11. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	13.108	1,129,051	14,710.1	6,672.5
		2	60.3	13.177	9,046,583	118,484.5	53,744.6
		3	63.2	13.222	6,240,489	82,011.2	37,200.3
		4	64.8	13.222	4,525,653	59,475.2	26,977.9
		5	64.2	13.222	2,678,544	35,200.8	15,967.1
	LDGT1 with VMT mix of 28.2%	1	59.7	16.711	1,129,051	11,737.2	5,324.0
		2	60.3	16.788	9,046,583	94,474.3	42,853.5
		3	63.2	16.840	6,240,489	65,373.4	29,653.4
		4	64.8	16.840	4,525,653	47,409.3	21,504.9
		5	64.2	16.840	2,678,544	28,059.6	12,727.8
	LDGT2 with VMT mix of 11.2%	1	59.7	18.807	1,129,051	5,223.8	2,369.5
		2	60.3	18.890	9,046,583	42,041.0	19,069.8
		3	63.2	18.943	6,240,489	29,081.1	13,191.2
		4	64.8	18.943	4,525,653	21,089.8	9,566.3
		5	64.2	18.943	2,678,544	12,482.2	5,661.9
	HDGV with VMT mix of 3.6%	1	59.7	12.791	1,129,051	1,133.4	514.1
		2	60.3	13.109	9,046,583	9,306.8	4,221.6
		3	63.2	13.317	6,240,489	6,521.7	2,958.2
		4	64.8	13.317	4,525,653	4,729.6	2,145.3
		5	64.2	13.317	2,678,544	2,799.2	1,269.7
	LDDV with VMT mix of 0.2%	1	59.7	1.243	1,129,051	6.8	3.1
		2	60.3	1.254	9,046,583	55.0	25.0
		3	63.2	1.261	6,240,489	38.2	17.3
		4	64.8	1.261	4,525,653	27.7	12.6
		5	64.2	1.261	2,678,544	16.4	7.4
LDDT with VMT mix of 2.2%	1	59.7	0.664	1,129,051	35.7	16.2	
	2	60.3	0.671	9,046,583	288.8	131.0	
	3	63.2	0.675	6,240,489	200.6	91.0	
	4	64.8	0.675	4,525,653	145.5	66.0	
	5	64.2	0.675	2,678,544	86.1	39.0	
HDDV with VMT mix of 9.1%	1	59.7	2.449	1,129,051	554.1	251.3	
	2	60.3	2.489	9,046,583	4,511.0	2,046.2	
	3	63.2	2.515	6,240,489	3,144.3	1,426.2	
	4	64.8	2.515	4,525,653	2,280.2	1,034.3	
	5	64.2	2.515	2,678,544	1,349.6	612.2	
MC with VMT mix of 0.5%	1	59.7	21.115	1,129,051	268.0	121.6	
	2	60.3	22.030	9,046,583	2,240.5	1,016.3	
	3	63.2	22.630	6,240,489	1,587.6	720.2	
	4	64.8	22.630	4,525,653	1,151.4	522.3	
	5	64.2	22.630	2,678,544	681.4	309.1	

Table 5.5–11. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	9.686	1,087,462	10,469.1	4,748.8
PRINCIPAL	LDGV	2	34.4	9.835	8,834,531	86,363.5	39,174.5
ARTERIALS	with VMT	3	36.1	9.982	9,795,953	97,190.5	44,085.6
and	mix of	4	39.0	10.157	6,923,412	69,893.5	31,703.7
MINOR	45.1%	5	42.6	10.538	2,670,291	27,969.8	12,687.1
ARTERIALS		1	30.3	12.995	1,087,462	8,791.1	3,987.7
	LDGT1	2	34.4	13.205	8,834,531	72,572.5	32,918.9
	with VMT	3	36.1	13.375	9,795,953	81,506.2	36,971.2
	mix of	4	39.0	13.593	6,923,412	58,544.9	26,556.0
	28.2%	5	42.6	14.022	2,670,291	23,291.6	10,565.1
		1	30.3	14.894	1,087,462	3,984.5	1,807.4
	LDGT2	2	34.4	15.091	8,834,531	32,797.5	14,876.9
	with VMT	3	36.1	15.270	9,795,953	36,798.8	16,691.9
	mix of	4	39.0	15.509	6,923,412	26,415.6	11,982.1
	11.2%	5	42.6	15.966	2,670,291	10,488.4	4,757.5
		1	30.3	10.773	1,087,462	919.4	417.0
	HDGV	2	34.4	9.660	8,834,531	6,697.0	3,037.8
	with VMT	3	36.1	9.346	9,795,953	7,184.5	3,258.9
	mix of	4	39.0	8.936	6,923,412	4,854.9	2,202.2
	3.6%	5	42.6	8.701	2,670,291	1,823.4	827.1
		1	30.3	1.296	1,087,462	6.8	3.1
	LDDV	2	34.4	1.217	8,834,531	52.1	23.6
	with VMT	3	36.1	1.193	9,795,953	56.7	25.7
	mix of	4	39.0	1.160	6,923,412	38.9	17.7
	0.2%	5	42.6	1.133	2,670,291	14.7	6.7
		1	30.3	0.698	1,087,462	36.1	16.4
	LDDT	2	34.4	0.647	8,834,531	272.1	123.4
	with VMT	3	36.1	0.631	9,795,953	294.2	133.4
	mix of	4	39.0	0.609	6,923,412	200.8	91.1
	2.2%	5	42.6	0.592	2,670,291	75.3	34.1
		1	30.3	2.647	1,087,462	576.7	261.6
	HDDV	2	34.4	2.350	8,834,531	4,160.2	1,887.1
	with VMT	3	36.1	2.260	9,795,953	4,435.5	2,012.0
	mix of	4	39.0	2.134	6,923,412	2,960.6	1,342.9
	9.1%	5	42.6	2.036	2,670,291	1,089.2	494.1
		1	30.3	13.080	1,087,462	159.9	72.5
	MC	2	34.4	11.765	8,834,531	1,168.5	530.1
	with VMT	3	36.1	11.328	9,795,953	1,247.6	565.9
	mix of	4	39.0	10.694	6,923,412	832.4	377.6
	0.5%	5	42.6	10.114	2,670,291	303.6	137.7

Table 5.5–11. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	10.040	1,046,993	10,448.3	4,739.3
	LDGV	2	19.1	9.940	2,727,290	26,946.0	12,222.7
	with VMT	3	24.4	9.609	1,694,159	16,180.2	7,339.3
	mix of	4	24.7	9.595	872,616	8,321.6	3,774.7
	45.1%	5	28.2	9.559	955,062	9,074.1	4,116.0
		1	18.2	13.268	1,046,993	8,641.7	3,919.9
	LDGT1	2	19.1	13.167	2,727,290	22,338.1	10,132.5
	with VMT	3	24.4	12.875	1,694,159	13,568.5	6,154.7
	mix of	4	24.7	12.863	872,616	6,982.4	3,167.2
	28.2%	5	28.2	12.859	955,062	7,639.7	3,465.4
		1	18.2	15.380	1,046,993	3,961.5	1,796.9
	LDGT2	2	19.1	15.251	2,727,290	10,232.5	4,641.4
	with VMT	3	24.4	14.841	1,694,159	6,185.5	2,805.7
	mix of	4	24.7	14.827	872,616	3,182.9	1,443.8
	11.2%	5	28.2	14.777	955,062	3,472.0	1,574.9
		1	18.2	18.423	1,046,993	1,513.7	686.6
	HDGV	2	19.1	17.524	2,727,290	3,750.6	1,701.3
	with VMT	3	24.4	13.463	1,694,159	1,789.9	811.9
	mix of	4	24.7	13.282	872,616	909.5	412.6
	3.6%	5	28.2	11.581	955,062	868.0	393.7
		1	18.2	1.786	1,046,993	9.1	4.1
	LDDV	2	19.1	1.731	2,727,290	22.9	10.4
	with VMT	3	24.4	1.474	1,694,159	12.1	5.5
	mix of	4	24.7	1.463	872,616	6.2	2.8
	0.2%	5	28.2	1.350	955,062	6.3	2.8
	1	18.2	1.015	1,046,993	50.6	23.0	
LDDT	2	19.1	0.979	2,727,290	127.2	57.7	
with VMT	3	24.4	0.813	1,694,159	65.6	29.8	
mix of	4	24.7	0.806	872,616	33.5	15.2	
2.2%	5	28.2	0.733	955,062	33.3	15.1	
	1	18.2	4.479	1,046,993	939.7	426.3	
HDDV	2	19.1	4.274	2,727,290	2,335.5	1,059.4	
with VMT	3	24.4	3.314	1,694,159	1,125.0	510.3	
mix of	4	24.7	3.271	872,616	572.0	259.5	
9.1%	5	28.2	2.849	955,062	545.3	247.3	
	1	18.2	19.735	1,046,993	232.3	105.4	
MC	2	19.1	18.983	2,727,290	582.0	264.0	
with VMT	3	24.4	15.626	1,694,159	297.6	135.0	
mix of	4	24.7	15.480	872,616	151.9	68.9	
0.5%	5	28.2	13.874	955,062	149.0	67.6	

Table 5.5–11. Daily CO emissions in the ozone nonattainment area, by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
LOCAL		1	12.9	10.904	195,247	2,116.1	959.8
	LDGV	2	12.9	10.904	1,991,136	21,579.8	9,788.6
	with VMT	3	12.9	10.904	2,564,545	27,794.3	12,607.5
	mix of	4	12.9	10.904	1,689,510	18,310.8	8,305.8
	45.1%	5	12.9	10.904	855,772	9,274.8	4,207.0
		1	12.9	14.157	195,247	1,719.5	780.0
	LDGT1	2	12.9	14.157	1,991,136	17,535.4	7,954.1
	with VMT	3	12.9	14.157	2,564,545	22,585.3	10,244.7
	mix of	4	12.9	14.157	1,689,510	14,879.1	6,749.1
	28.2%	5	12.9	14.157	855,772	7,536.6	3,418.6
		1	12.9	16.521	195,247	793.5	360.0
	LDGT2	2	12.9	16.521	1,991,136	8,092.6	3,670.8
	with VMT	3	12.9	16.521	2,564,545	10,423.1	4,727.9
	mix of	4	12.9	16.521	1,689,510	6,866.7	3,114.7
	11.2%	5	12.9	16.521	855,772	3,478.1	1,577.7
		1	12.9	25.590	195,247	392.1	177.9
	HDGV	2	12.9	25.590	1,991,136	3,998.6	1,813.8
	with VMT	3	12.9	25.590	2,564,545	5,150.1	2,336.1
	mix of	4	12.9	25.590	1,689,510	3,392.9	1,539.0
	3.6%	5	12.9	25.590	855,772	1,718.6	779.5
		1	12.9	2.216	195,247	2.1	1.0
	LDDV	2	12.9	2.216	1,991,136	21.4	9.7
	with VMT	3	12.9	2.216	2,564,545	27.6	12.5
	mix of	4	12.9	2.216	1,689,510	18.2	8.2
	0.2%	5	12.9	2.216	855,772	9.2	4.2
	1	12.9	1.294	195,247	12.0	5.5	
LDDT	2	12.9	1.294	1,991,136	122.7	55.6	
with VMT	3	12.9	1.294	2,564,545	158.0	71.7	
mix of	4	12.9	1.294	1,689,510	104.1	47.2	
2.2%	5	12.9	1.294	855,772	52.7	23.9	
	1	12.9	6.090	195,247	238.3	108.1	
HDDV	2	12.9	6.090	1,991,136	2,429.9	1,102.2	
with VMT	3	12.9	6.090	2,564,545	3,129.7	1,419.6	
mix of	4	12.9	6.090	1,689,510	2,061.8	935.2	
9.1%	5	12.9	6.090	855,772	1,044.4	473.7	
	1	12.9	26.555	195,247	58.3	26.4	
MC	2	12.9	26.555	1,991,136	594.4	269.6	
with VMT	3	12.9	26.555	2,564,545	765.6	347.3	
mix of	4	12.9	26.555	1,689,510	504.4	228.8	
0.5%	5	12.9	26.555	855,772	255.5	115.9	

Table 5.5–12. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (annual average day).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
INTERSTATE, FREEWAY, and EXPRESSWAY	LDGV with VMT mix of 45.1%	1	59.7	13.108	1,129,051	14,710.1	6,672.5
		2	60.3	13.177	9,046,583	118,484.5	53,744.6
		3	63.2	13.222	6,240,489	82,011.2	37,200.3
		4	64.8	13.222	4,525,653	59,475.2	26,977.9
		5	64.2	13.222	5,662,224	74,411.7	33,753.2
	LDGT1 with VMT mix of 28.2%	1	59.7	16.711	1,129,051	11,737.2	5,324.0
		2	60.3	16.788	9,046,583	94,474.3	42,853.5
		3	63.2	16.840	6,240,489	65,373.4	29,653.4
		4	64.8	16.840	4,525,653	47,409.3	21,504.9
		5	64.2	16.840	5,662,224	59,315.7	26,905.6
	LDGT2 with VMT mix of 11.2%	1	59.7	18.807	1,129,051	5,223.8	2,369.5
		2	60.3	18.890	9,046,583	42,041.0	19,069.8
		3	63.2	18.943	6,240,489	29,081.1	13,191.2
		4	64.8	18.943	4,525,653	21,089.8	9,566.3
		5	64.2	18.943	5,662,224	26,386.3	11,968.8
	HDGV with VMT mix of 3.6%	1	59.7	12.791	1,129,051	1,133.4	514.1
		2	60.3	13.109	9,046,583	9,306.8	4,221.6
		3	63.2	13.317	6,240,489	6,521.7	2,958.2
		4	64.8	13.317	4,525,653	4,729.6	2,145.3
		5	64.2	13.317	5,662,224	5,917.3	2,684.1
LDDV with VMT mix of 0.2%	1	59.7	1.243	1,129,051	6.8	3.1	
	2	60.3	1.254	9,046,583	55.0	25.0	
	3	63.2	1.261	6,240,489	38.2	17.3	
	4	64.8	1.261	4,525,653	27.7	12.6	
	5	64.2	1.261	5,662,224	34.6	15.7	
LDDT with VMT mix of 2.2%	1	59.7	0.664	1,129,051	35.7	16.2	
	2	60.3	0.671	9,046,583	288.8	131.0	
	3	63.2	0.675	6,240,489	200.6	91.0	
	4	64.8	0.675	4,525,653	145.5	66.0	
	5	64.2	0.675	5,662,224	182.0	82.5	
HDDV with VMT mix of 9.1%	1	59.7	2.449	1,129,051	554.1	251.3	
	2	60.3	2.489	9,046,583	4,511.0	2,046.2	
	3	63.2	2.515	6,240,489	3,144.3	1,426.2	
	4	64.8	2.515	4,525,653	2,280.2	1,034.3	
	5	64.2	2.515	5,662,224	2,852.9	1,294.1	
MC with VMT mix of 0.5%	1	59.7	21.115	1,129,051	268.0	121.6	
	2	60.3	22.030	9,046,583	2,240.5	1,016.3	
	3	63.2	22.630	6,240,489	1,587.6	720.2	
	4	64.8	22.630	4,525,653	1,151.4	522.3	
	5	64.2	22.630	5,662,224	1,440.5	653.4	

Table 5.5–12. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
		1	30.3	9.686	1,087,462	10,469.1	4,748.8
PRINCIPAL	LDGV	2	34.4	9.835	8,834,531	86,363.5	39,174.5
ARTERIALS	with VMT	3	36.1	9.982	9,795,953	97,190.5	44,085.6
and	mix of	4	39.0	10.157	6,923,412	69,893.5	31,703.7
MINOR	45.1%	5	42.6	10.538	3,738,642	39,160.1	17,763.0
ARTERIALS		1	30.3	12.995	1,087,462	8,791.1	3,987.7
	LDGT1	2	34.4	13.205	8,834,531	72,572.5	32,918.9
	with VMT	3	36.1	13.375	9,795,953	81,506.2	36,971.2
	mix of	4	39.0	13.593	6,923,412	58,544.9	26,556.0
	28.2%	5	42.6	14.022	3,738,642	32,610.3	14,792.0
		1	30.3	14.894	1,087,462	3,984.5	1,807.4
	LDGT2	2	34.4	15.091	8,834,531	32,797.5	14,876.9
	with VMT	3	36.1	15.270	9,795,953	36,798.8	16,691.9
	mix of	4	39.0	15.509	6,923,412	26,415.6	11,982.1
	11.2%	5	42.6	15.966	3,738,642	14,684.6	6,661.0
		1	30.3	10.773	1,087,462	919.4	417.0
	HDGV	2	34.4	9.660	8,834,531	6,697.0	3,037.8
	with VMT	3	36.1	9.346	9,795,953	7,184.5	3,258.9
	mix of	4	39.0	8.936	6,923,412	4,854.9	2,202.2
	3.6%	5	42.6	8.701	3,738,642	2,552.9	1,158.0
		1	30.3	1.296	1,087,462	6.8	3.1
	LDDV	2	34.4	1.217	8,834,531	52.1	23.6
	with VMT	3	36.1	1.193	9,795,953	56.7	25.7
	mix of	4	39.0	1.160	6,923,412	38.9	17.7
	0.2%	5	42.6	1.133	3,738,642	20.5	9.3
		1	30.3	0.698	1,087,462	36.1	16.4
	LDDT	2	34.4	0.647	8,834,531	272.1	123.4
	with VMT	3	36.1	0.631	9,795,953	294.2	133.4
	mix of	4	39.0	0.609	6,923,412	200.8	91.1
	2.2%	5	42.6	0.592	3,738,642	105.4	47.8
		1	30.3	2.647	1,087,462	576.7	261.6
	HDDV	2	34.4	2.350	8,834,531	4,160.2	1,887.1
	with VMT	3	36.1	2.260	9,795,953	4,435.5	2,012.0
	mix of	4	39.0	2.134	6,923,412	2,960.6	1,342.9
	9.1%	5	42.6	2.036	3,738,642	1,524.9	691.7
		1	30.3	13.080	1,087,462	159.9	72.5
	MC	2	34.4	11.765	8,834,531	1,168.5	530.1
	with VMT	3	36.1	11.328	9,795,953	1,247.6	565.9
	mix of	4	39.0	10.694	6,923,412	832.4	377.6
	0.5%	5	42.6	10.114	3,738,642	425.1	192.8

Table 5.5–12. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)
COLLECTOR		1	18.2	10.040	1,046,993	10,448.3	4,739.3
	LDGV	2	19.1	9.940	2,727,290	26,946.0	12,222.7
	with VMT	3	24.4	9.609	1,694,159	16,180.2	7,339.3
	mix of	4	24.7	9.595	872,616	8,321.6	3,774.7
	45.1%	5	28.2	9.559	2,390,942	22,716.5	10,304.2
		1	18.2	13.268	1,046,993	8,641.7	3,919.9
	LDGT1	2	19.1	13.167	2,727,290	22,338.1	10,132.5
	with VMT	3	24.4	12.875	1,694,159	13,568.5	6,154.7
	mix of	4	24.7	12.863	872,616	6,982.4	3,167.2
	28.2%	5	28.2	12.859	2,390,942	19,125.5	8,675.3
		1	18.2	15.380	1,046,993	3,961.5	1,796.9
	LDGT2	2	19.1	15.251	2,727,290	10,232.5	4,641.4
	with VMT	3	24.4	14.841	1,694,159	6,185.5	2,805.7
	mix of	4	24.7	14.827	872,616	3,182.9	1,443.8
	11.2%	5	28.2	14.777	2,390,942	8,691.9	3,942.6
		1	18.2	18.423	1,046,993	1,513.7	686.6
	HDGV	2	19.1	17.524	2,727,290	3,750.6	1,701.3
	with VMT	3	24.4	13.463	1,694,159	1,789.9	811.9
	mix of	4	24.7	13.282	872,616	909.5	412.6
	3.6%	5	28.2	11.581	2,390,942	2,173.0	985.7
		1	18.2	1.786	1,046,993	9.1	4.1
	LDDV	2	19.1	1.731	2,727,290	22.9	10.4
	with VMT	3	24.4	1.474	1,694,159	12.1	5.5
	mix of	4	24.7	1.463	872,616	6.2	2.8
	0.2%	5	28.2	1.350	2,390,942	15.7	7.1
	1	18.2	1.015	1,046,993	50.6	23.0	
LDDT	2	19.1	0.979	2,727,290	127.2	57.7	
with VMT	3	24.4	0.813	1,694,159	65.6	29.8	
mix of	4	24.7	0.806	872,616	33.5	15.2	
2.2%	5	28.2	0.733	2,390,942	83.5	37.9	
	1	18.2	4.479	1,046,993	939.7	426.3	
HDDV	2	19.1	4.274	2,727,290	2,335.5	1,059.4	
with VMT	3	24.4	3.314	1,694,159	1,125.0	510.3	
mix of	4	24.7	3.271	872,616	572.0	259.5	
9.1%	5	28.2	2.849	2,390,942	1,365.0	619.2	
	1	18.2	19.735	1,046,993	232.3	105.4	
MC	2	19.1	18.983	2,727,290	582.0	264.0	
with VMT	3	24.4	15.626	1,694,159	297.6	135.0	
mix of	4	24.7	15.480	872,616	151.9	68.9	
0.5%	5	28.2	13.874	2,390,942	372.9	169.2	

Table 5.5–12. Daily CO emissions in Maricopa County by vehicle class, facility type and area type (annual average day) (continued).

Facility type	Vehicle class	Area type	Speed (mph)	Emission factor (g/mi)	DVMT (miles)	Emissions (lb/day)	Emissions (kg/day)	
LOCAL		1	12.9	10.904	195,247	2,116.1	959.8	
		2	12.9	10.904	1,991,136	21,579.8	9,788.6	
		with VMT	3	12.9	10.904	2,564,545	27,794.3	12,607.5
		mix of	4	12.9	10.904	1,689,510	18,310.8	8,305.8
		45.1%	5	12.9	10.904	1,422,562	15,417.6	6,993.4
	LDGV	1	12.9	14.157	195,247	1,719.5	780.0	
		2	12.9	14.157	1,991,136	17,535.4	7,954.1	
		with VMT	3	12.9	14.157	2,564,545	22,585.3	10,244.7
		mix of	4	12.9	14.157	1,689,510	14,879.1	6,749.1
		28.2%	5	12.9	14.157	1,422,562	12,528.1	5,682.8
	LDGT1	1	12.9	16.521	195,247	793.5	360.0	
		2	12.9	16.521	1,991,136	8,092.6	3,670.8	
		with VMT	3	12.9	16.521	2,564,545	10,423.1	4,727.9
		mix of	4	12.9	16.521	1,689,510	6,866.7	3,114.7
		11.2%	5	12.9	16.521	1,422,562	5,781.7	2,622.6
	LDGT2	1	12.9	25.590	195,247	392.1	177.9	
		2	12.9	25.590	1,991,136	3,998.6	1,813.8	
		with VMT	3	12.9	25.590	2,564,545	5,150.1	2,336.1
		mix of	4	12.9	25.590	1,689,510	3,392.9	1,539.0
		3.6%	5	12.9	25.590	1,422,562	2,856.8	1,295.8
HDGV	1	12.9	2.216	195,247	2.1	1.0		
	2	12.9	2.216	1,991,136	21.4	9.7		
	with VMT	3	12.9	2.216	2,564,545	27.6	12.5	
	mix of	4	12.9	2.216	1,689,510	18.2	8.2	
	0.2%	5	12.9	2.216	1,422,562	15.3	6.9	
LDDV	1	12.9	1.294	195,247	12.0	5.5		
	2	12.9	1.294	1,991,136	122.7	55.6		
	with VMT	3	12.9	1.294	2,564,545	158.0	71.7	
	mix of	4	12.9	1.294	1,689,510	104.1	47.2	
	2.2%	5	12.9	1.294	1,422,562	87.6	39.8	
LDDT	1	12.9	6.090	195,247	238.3	108.1		
	2	12.9	6.090	1,991,136	2,429.9	1,102.2		
	with VMT	3	12.9	6.090	2,564,545	3,129.7	1,419.6	
	mix of	4	12.9	6.090	1,689,510	2,061.8	935.2	
	9.1%	5	12.9	6.090	1,422,562	1,736.1	787.5	
HDDV	1	12.9	26.555	195,247	58.3	26.4		
	2	12.9	26.555	1,991,136	594.4	269.6		
	with VMT	3	12.9	26.555	2,564,545	765.6	347.3	
	mix of	4	12.9	26.555	1,689,510	504.4	228.8	
	0.5%	5	12.9	26.555	1,422,562	424.7	192.6	

5.6 Summary of ozone precursor emissions from onroad mobile sources

Tables 5.6–1 through 5.6–12 summarize the calculated onroad emissions by vehicle class, area, and facility type. Total VOC emissions from onroad sources for a peak ozone season day are 75,261 kilograms (165,922 pounds) per day for the ozone nonattainment area and 81,819 kg (180,380 lb) per day for all of Maricopa County. Total annual VOC emissions from onroad sources are 29,402 English tons for the ozone nonattainment area and 31,960 English tons for Maricopa County.

Total NO_x emissions from onroad sources for a peak ozone season day are 181,320 kg (399,742 lb) per day for the ozone nonattainment area and 198,556 kg (437,741 lb) per day for all of Maricopa County. Total annual NO_x emissions from onroad sources are 72,691 English tons for the ozone nonattainment area and 79,572 English tons for Maricopa County.

Total CO emissions from onroad sources for a peak ozone season day are 839,319 kg (1,850,382 lb) per day for the ozone nonattainment area and 917,819 kg (2,023,444 lb) per day for all of Maricopa County. Total annual CO emissions from onroad sources are 322,867 English tons for the ozone nonattainment area and 352,821 English tons for Maricopa County.

Table 5.6–1. Daily VOC emissions (kg/day) in the ozone NAA by vehicle class, area type and facility type (summer day).

Facility type	Area Type	Vehicle Class							MC	TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV		
INTERSTATE, FREEWAY, and EXPRESSWAY	1	477.1	349.3	166.7	35.5	0.9	6.3	39.0	15.0	1,089.8
	2	3,818.7	2,791.2	1,333.0	284.1	7.5	50.1	312.6	121.8	8,719.0
	3	2,631.5	1,923.6	918.2	195.9	5.2	34.5	215.6	84.9	6,009.5
	4	1,908.4	1,395.0	665.9	142.1	3.8	25.1	156.4	61.6	4,358.2
	5	1,129.5	825.6	394.1	84.1	2.2	14.8	92.6	36.5	2,579.4
	Total	9,965.3	7,284.8	3,477.9	741.7	19.6	130.8	816.2	319.7	22,756.0
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	522.7	390.3	188.1	49.0	1.1	8.0	57.2	13.0	1,229.5
	2	4,093.4	3,050.2	1,467.7	361.9	8.7	60.4	417.0	100.8	9,560.2
	3	4,491.2	3,341.5	1,608.2	387.8	9.5	65.0	444.5	109.8	10,457.4
	4	3,131.0	2,323.5	1,118.5	260.2	6.4	44.1	294.8	75.9	7,254.5
	5	1,188.6	879.8	423.0	95.1	2.4	16.2	106.2	28.6	2,740.1
	Total	13,426.9	9,985.3	4,805.6	1,154.0	28.2	193.8	1,319.8	328.2	31,241.6
COLLECTOR	1	599.2	448.8	216.6	71.8	1.4	10.5	82.3	15.4	1,446.0
	2	1,532.1	1,144.2	552.0	179.9	3.7	26.7	207.5	39.3	3,685.3
	3	870.3	648.6	312.8	91.0	2.0	14.3	106.9	22.1	2,068.0
	4	446.3	332.7	160.5	46.4	1.0	7.3	54.5	11.3	1,060.0
	5	468.8	349.9	168.8	45.5	1.0	7.4	53.4	11.7	1,106.5
	Total	3,916.6	2,924.2	1,410.6	434.7	9.2	66.2	504.6	99.7	9,365.9
LOCAL	1	129.3	98.9	47.6	17.5	0.3	2.3	19.0	3.4	318.4
	2	1,318.8	1,008.2	485.8	178.9	3.2	23.8	193.5	34.6	3,246.9
	3	1,698.6	1,298.6	625.7	230.4	4.1	30.6	249.3	44.6	4,182.0
	4	1,119.0	855.5	412.2	151.8	2.7	20.2	164.2	29.4	2,755.1
	5	566.8	433.3	208.8	76.9	1.4	10.2	83.2	14.9	1,395.5
	Total	4,832.6	3,694.5	1,780.2	655.6	11.7	87.1	709.2	126.8	11,897.9
GRAND TOTALS:		32,141.5	23,888.8	11,474.3	2,986.0	68.7	477.9	3,349.8	874.5	75,261.3

Table 5.6–2. Daily VOC emissions (kg/day) in Maricopa County by vehicle class, area type and facility type (summer day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	477.1	349.3	166.7	35.5	0.9	6.3	39.0	15.0	1,089.8
	2	3,818.7	2,791.2	1,333.0	284.1	7.5	50.1	312.6	121.8	8,719.0
	3	2,631.5	1,923.6	918.2	195.9	5.2	34.5	215.6	84.9	6,009.5
	4	1,908.4	1,395.0	665.9	142.1	3.8	25.1	156.4	61.6	4,358.2
	5	2,387.7	1,745.4	833.1	177.8	4.7	31.3	195.6	77.1	5,452.7
	Total	11,223.5	8,204.5	3,916.9	835.4	22.1	147.3	919.3	360.4	25,629.2
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	522.7	390.3	188.1	49.0	1.1	8.0	57.2	13.0	1,229.5
	2	4,093.4	3,050.2	1,467.7	361.9	8.7	60.4	417.0	100.8	9,560.2
	3	4,491.2	3,341.5	1,608.2	387.8	9.5	65.0	444.5	109.8	10,457.4
	4	3,131.0	2,323.5	1,118.5	260.2	6.4	44.1	294.8	75.9	7,254.5
	5	1,664.2	1,231.8	592.2	133.2	3.3	22.7	148.8	40.1	3,836.3
	Total	13,902.4	10,337.3	4,974.8	1,192.0	29.1	200.3	1,362.3	339.6	32,337.9
COLLECTOR	1	599.2	448.8	216.6	71.8	1.4	10.5	82.3	15.4	1,446.0
	2	1,532.1	1,144.2	552.0	179.9	3.7	26.7	207.5	39.3	3,685.3
	3	870.3	648.6	312.8	91.0	2.0	14.3	106.9	22.1	2,068.0
	4	446.3	332.7	160.5	46.4	1.0	7.3	54.5	11.3	1,060.0
	5	1,173.5	875.9	422.5	114.0	2.6	18.4	133.7	29.4	2,770.1
	Total	4,621.4	3,450.2	1,664.3	503.2	10.8	77.3	584.9	117.4	11,029.5
LOCAL	1	129.3	98.9	47.6	17.5	0.3	2.3	19.0	3.4	318.4
	2	1,318.8	1,008.2	485.8	178.9	3.2	23.8	193.5	34.6	3,246.9
	3	1,698.6	1,298.6	625.7	230.4	4.1	30.6	249.3	44.6	4,182.0
	4	1,119.0	855.5	412.2	151.8	2.7	20.2	164.2	29.4	2,755.1
	5	942.2	720.3	347.1	127.8	2.3	17.0	138.3	24.7	2,319.8
	Total	5,208.1	3,981.5	1,918.5	706.6	12.6	93.9	764.3	136.7	12,822.1
GRAND TOTALS:		34,955.4	25,973.5	12,474.5	3,237.2	74.6	518.7	3,630.8	954.0	81,818.7

Table 5.6–3. Daily VOC emissions (kg/day) in the ozone NAA by vehicle class, area type and facility type (annual average day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	461.0	338.2	158.0	32.2	1.0	6.4	40.0	15.4	1,052.3
	2	3,687.5	2,704.6	1,263.6	258.2	7.9	51.5	320.7	125.1	8,419.2
	3	2,541.5	1,863.4	870.3	178.0	5.5	35.5	221.2	87.2	5,802.7
	4	1,843.1	1,351.3	631.2	129.1	4.0	25.8	160.4	63.3	4,208.1
	5	1,090.9	799.8	373.6	76.4	2.3	15.3	94.9	37.4	2,490.6
	Total	9,624.0	7,057.3	3,296.7	674.1	20.7	134.5	837.3	328.4	21,972.9
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	510.1	376.2	178.2	45.7	1.2	8.3	58.7	13.4	1,191.8
	2	3,994.6	2,948.1	1,392.0	335.6	9.2	62.1	427.7	103.7	9,273.1
	3	4,380.3	3,233.5	1,525.9	359.0	10.0	66.9	455.9	113.1	10,144.5
	4	3,040.6	2,246.4	1,059.7	240.0	6.8	45.3	302.4	78.0	7,019.1
	5	1,152.5	851.4	401.4	87.3	2.5	16.7	109.0	29.4	2,650.3
	Total	13,078.2	9,655.6	4,557.1	1,067.6	29.6	199.2	1,353.7	337.6	30,278.7
COLLECTOR	1	589.5	431.7	205.3	68.6	1.5	10.8	84.4	15.7	1,407.6
	2	1,502.3	1,098.2	522.5	171.3	3.9	27.4	213.0	40.2	3,578.8
	3	849.7	622.4	295.5	85.7	2.1	14.7	109.7	22.7	2,002.5
	4	435.8	319.3	151.6	43.7	1.1	7.5	55.9	11.6	1,026.5
	5	457.1	336.4	159.5	42.7	1.1	7.6	54.8	12.1	1,071.1
	Total	3,834.3	2,807.9	1,334.4	411.9	9.7	68.1	517.8	102.3	9,086.4
LOCAL	1	129.8	96.0	45.7	17.1	0.3	2.4	19.5	3.5	314.2
	2	1,323.2	979.0	465.7	174.2	3.4	24.4	198.6	35.4	3,203.8
	3	1,704.3	1,260.9	599.8	224.3	4.3	31.5	255.8	45.6	4,126.5
	4	1,122.8	830.7	395.1	147.8	2.9	20.7	168.5	30.0	2,718.5
	5	568.7	420.8	200.1	74.9	1.4	10.5	85.3	15.2	1,377.0
	Total	4,848.8	3,587.4	1,706.3	638.2	12.3	89.5	727.6	129.7	11,739.9
GRAND TOTALS:		31,385.3	23,108.2	10,894.6	2,791.7	72.3	491.3	3,436.4	898.1	73,078.0

Table 5.6-4. Daily VOC emissions (kg/day) in Maricopa County by vehicle class, area type and facility type (annual average day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	461.0	338.2	158.0	32.2	1.0	6.4	40.0	15.4	1,052.3
	2	3,687.5	2,704.6	1,263.6	258.2	7.9	51.5	320.7	125.1	8,419.2
	3	2,541.5	1,863.4	870.3	178.0	5.5	35.5	221.2	87.2	5,802.7
	4	1,843.1	1,351.3	631.2	129.1	4.0	25.8	160.4	63.3	4,208.1
	5	2,306.0	1,690.7	789.7	161.5	5.0	32.2	200.7	79.2	5,265.0
	Total	10,839.1	7,948.2	3,712.8	759.2	23.3	151.5	943.0	370.1	24,747.3
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	510.1	376.2	178.2	45.7	1.2	8.3	58.7	13.4	1,191.8
	2	3,994.6	2,948.1	1,392.0	335.6	9.2	62.1	427.7	103.7	9,273.1
	3	4,380.3	3,233.5	1,525.9	359.0	10.0	66.9	455.9	113.1	10,144.5
	4	3,040.6	2,246.4	1,059.7	240.0	6.8	45.3	302.4	78.0	7,019.1
	5	1,613.6	1,192.1	562.0	122.3	3.5	23.4	152.6	41.2	3,710.6
	Total	13,539.3	9,996.2	4,717.7	1,102.6	30.7	205.9	1,397.3	349.4	31,339.1
COLLECTOR	1	589.5	431.7	205.3	68.6	1.5	10.8	84.4	15.7	1,407.6
	2	1,502.3	1,098.2	522.5	171.3	3.9	27.4	213.0	40.2	3,578.8
	3	849.7	622.4	295.5	85.7	2.1	14.7	109.7	22.7	2,002.5
	4	435.8	319.3	151.6	43.7	1.1	7.5	55.9	11.6	1,026.5
	5	1,144.3	842.0	399.2	106.8	2.8	19.0	137.2	30.2	2,681.4
	Total	4,521.5	3,313.6	1,574.2	476.0	11.3	79.5	600.2	120.5	10,696.8
LOCAL	1	129.8	96.0	45.7	17.1	0.3	2.4	19.5	3.5	314.2
	2	1,323.2	979.0	465.7	174.2	3.4	24.4	198.6	35.4	3,203.8
	3	1,704.3	1,260.9	599.8	224.3	4.3	31.5	255.8	45.6	4,126.5
	4	1,122.8	830.7	395.1	147.8	2.9	20.7	168.5	30.0	2,718.5
	5	945.4	699.5	332.7	124.4	2.4	17.4	141.9	25.3	2,289.0
	Total	5,225.4	3,866.1	1,838.9	687.8	13.3	96.4	784.1	139.8	12,651.9
GRAND TOTALS:		34,125.4	25,124.1	11,843.6	3,025.5	78.6	533.3	3,724.6	979.9	79,435.0

Table 5.6–5. Daily NO_x emissions (kg/day) in the ozone NAA by vehicle class, area type and facility type (summer day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	524.8	410.3	198.0	216.5	4.3	27.9	2,322.9	9.0	3,713.6
	2	4,213.0	3,292.7	1,588.9	1,742.2	35.0	229.0	18,984.2	73.1	30,158.0
	3	2,908.9	2,274.6	1,097.4	1,205.0	24.6	160.6	13,262.8	50.7	20,984.5
	4	2,109.5	1,649.5	795.8	873.9	17.8	116.4	9,618.3	36.8	15,218.1
	5	1,248.6	976.3	471.0	517.2	10.5	68.9	5,692.6	21.8	9,007.0
	Total	11,004.8	8,603.4	4,151.1	4,554.7	92.2	602.8	49,880.7	191.3	79,081.1
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	488.4	367.2	179.8	166.7	2.3	15.0	1,177.3	6.1	2,402.7
	2	3,859.9	2,937.3	1,440.8	1,399.1	18.6	120.7	9,505.5	50.6	19,332.5
	3	4,270.8	3,256.9	1,597.5	1,572.5	20.7	134.7	10,586.9	57.1	21,497.1
	4	3,024.4	2,314.9	1,132.8	1,136.3	14.9	96.5	7,573.7	40.7	15,334.0
	5	1,173.3	901.5	440.1	450.2	6.0	38.6	3,014.3	15.9	6,039.9
	Total	12,816.9	9,777.7	4,791.0	4,724.8	62.5	405.5	31,857.6	170.4	64,606.3
COLLECTOR	1	554.2	400.1	195.6	145.2	2.6	16.9	1,292.3	5.1	2,611.9
	2	1,418.6	1,028.0	502.7	380.8	6.6	43.1	3,315.4	13.5	6,708.8
	3	811.8	599.8	293.5	247.4	3.8	24.6	1,914.8	8.9	3,904.5
	4	416.6	308.0	150.7	127.7	1.9	12.6	983.0	4.6	2,005.1
	5	437.7	327.2	160.2	144.1	2.1	13.3	1,046.5	5.2	2,136.3
	Total	3,638.9	2,663.0	1,302.5	1,045.3	17.0	110.5	8,552.0	37.3	17,366.6
LOCAL	1	118.5	83.3	40.6	25.8	0.5	3.6	269.0	0.9	542.3
	2	1,208.3	850.0	414.2	263.4	5.6	36.5	2,743.3	9.4	5,530.6
	3	1,556.3	1,094.7	533.4	339.3	7.2	47.0	3,533.3	12.1	7,123.4
	4	1,025.3	721.2	351.4	223.5	4.7	30.9	2,327.7	7.9	4,692.8
	5	519.3	365.3	178.0	113.2	2.4	15.7	1,179.0	4.0	2,377.0
	Total	4,427.8	3,114.6	1,517.7	965.3	20.5	133.6	10,052.4	34.3	20,266.2
GRAND TOTALS:		31,888.4	24,158.7	11,762.3	11,290.1	192.3	1,252.4	100,342.7	433.3	181,320.3

Table 5.6–6. Daily NO_x emissions (kg/day) in Maricopa County by vehicle class, area type and facility type (summer day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	524.8	410.3	198.0	216.5	4.3	27.9	2,322.9	9.0	3,713.6
	2	4,213.0	3,292.7	1,588.9	1,742.2	35.0	229.0	18,984.2	73.1	30,158.0
	3	2,908.9	2,274.6	1,097.4	1,205.0	24.6	160.6	13,262.8	50.7	20,984.5
	4	2,109.5	1,649.5	795.8	873.9	17.8	116.4	9,618.3	36.8	15,218.1
	5	2,639.3	2,063.8	995.7	1,093.3	22.3	145.7	12,033.8	46.0	19,040.0
	Total	12,395.6	9,690.9	4,675.8	5,130.8	104.0	679.6	56,221.9	215.6	89,114.1
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	488.4	367.2	179.8	166.7	2.3	15.0	1,177.3	6.1	2,402.7
	2	3,859.9	2,937.3	1,440.8	1,399.1	18.6	120.7	9,505.5	50.6	19,332.5
	3	4,270.8	3,256.9	1,597.5	1,572.5	20.7	134.7	10,586.9	57.1	21,497.1
	4	3,024.4	2,314.9	1,132.8	1,136.3	14.9	96.5	7,573.7	40.7	15,334.0
	5	1,642.8	1,262.2	616.1	630.3	8.3	54.1	4,220.3	22.3	8,456.4
	Total	13,286.3	10,138.4	4,967.0	4,905.0	64.9	420.9	33,063.6	176.7	67,022.9
COLLECTOR	1	554.2	400.1	195.6	145.2	2.6	16.9	1,292.3	5.1	2,611.9
	2	1,418.6	1,028.0	502.7	380.8	6.6	43.1	3,315.4	13.5	6,708.8
	3	811.8	599.8	293.5	247.4	3.8	24.6	1,914.8	8.9	3,904.5
	4	416.6	308.0	150.7	127.7	1.9	12.6	983.0	4.6	2,005.1
	5	1,095.7	819.1	401.0	360.7	5.2	33.4	2,619.9	13.1	5,348.0
	Total	4,296.9	3,154.9	1,543.4	1,261.9	20.1	130.6	10,125.3	45.2	20,578.3
LOCAL	1	118.5	83.3	40.6	25.8	0.5	3.6	269.0	0.9	542.3
	2	1,208.3	850.0	414.2	263.4	5.6	36.5	2,743.3	9.4	5,530.6
	3	1,556.3	1,094.7	533.4	339.3	7.2	47.0	3,533.3	12.1	7,123.4
	4	1,025.3	721.2	351.4	223.5	4.7	30.9	2,327.7	7.9	4,692.8
	5	863.3	607.3	295.9	188.2	4.0	26.0	1,960.0	6.7	3,951.4
	Total	4,771.8	3,356.5	1,635.5	1,040.3	22.1	144.0	10,833.3	37.0	21,840.5
GRAND TOTALS:		34,750.6	26,340.8	12,821.7	12,338.0	211.1	1,375.1	110,244.1	474.5	198,555.9

Table 5.6–7. Daily NO_x emissions (kg/day) in the ozone NAA by vehicle class, area type and facility type (annual average day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	490.8	378.6	187.2	222.5	4.4	28.8	2,396.9	9.7	3,718.9
	2	3,940.0	3,039.5	1,502.5	1,790.5	36.5	236.4	19,589.8	78.4	30,213.6
	3	2,722.1	2,100.2	1,037.8	1,238.4	25.6	165.8	13,686.5	54.4	21,030.8
	4	1,974.1	1,523.1	752.6	898.1	18.5	120.2	9,925.5	39.5	15,251.7
	5	1,168.4	901.5	445.4	531.6	11.0	71.2	5,874.5	23.4	9,026.8
	Total	10,295.4	7,942.8	3,925.6	4,681.1	96.0	622.4	51,473.2	205.3	79,241.8
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	441.3	333.9	167.5	171.3	2.4	15.5	1,289.4	6.5	2,427.7
	2	3,517.9	2,682.8	1,346.9	1,438.1	19.4	124.6	10,414.2	54.5	19,598.4
	3	3,901.1	2,979.5	1,495.2	1,616.3	21.6	138.9	11,596.4	60.9	21,809.9
	4	2,758.1	2,109.5	1,057.4	1,167.8	15.5	99.6	7,821.3	43.7	15,072.9
	5	1,074.9	823.1	411.7	462.7	6.2	39.9	3,113.1	17.1	5,948.7
	Total	11,693.3	8,928.8	4,478.7	4,856.3	65.1	418.5	34,234.3	182.7	64,857.6
COLLECTOR	1	489.5	361.4	180.9	149.2	2.7	17.4	1,334.9	5.5	2,541.5
	2	1,255.7	928.9	465.1	391.3	6.9	44.5	3,424.4	14.5	6,531.4
	3	725.6	543.0	272.2	254.3	3.9	25.4	1,977.6	9.5	3,811.5
	4	372.5	278.9	139.8	131.3	2.0	13.0	1,015.2	4.9	1,957.7
	5	393.7	296.6	148.8	148.1	2.1	13.8	1,080.8	5.6	2,089.5
	Total	3,237.0	2,408.9	1,206.8	1,074.3	17.7	114.1	8,832.8	40.0	16,931.5
LOCAL	1	103.3	75.1	37.5	26.5	0.6	3.7	277.9	1.0	525.5
	2	1,053.1	765.4	382.3	270.7	5.8	37.6	2,834.1	10.1	5,359.1
	3	1,356.4	985.8	492.4	348.7	7.5	48.5	3,650.3	12.9	6,902.5
	4	893.6	649.5	324.4	229.7	4.9	31.9	2,404.8	8.5	4,547.3
	5	452.6	329.0	164.3	116.4	2.5	16.2	1,218.1	4.3	2,303.3
	Total	3,859.0	2,804.7	1,400.8	992.0	21.3	137.9	10,385.2	36.8	19,637.7
GRAND TOTALS:		29,084.7	22,085.2	11,011.8	11,603.7	200.1	1,292.8	104,925.6	464.9	180,668.6

Table 5.6–8. Daily NO_x emissions (kg/day) in Maricopa County by vehicle class, area type and facility type (annual average day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	490.8	378.6	187.2	222.5	4.4	28.8	2,396.9	9.7	3,718.9
	2	3,940.0	3,039.5	1,502.5	1,790.5	36.5	236.4	19,589.8	78.4	30,213.6
	3	2,722.1	2,100.2	1,037.8	1,238.4	25.6	165.8	13,686.5	54.4	21,030.8
	4	1,974.1	1,523.1	752.6	898.1	18.5	120.2	9,925.5	39.5	15,251.7
	5	2,469.9	1,905.6	941.6	1,123.7	23.2	150.4	12,418.2	49.4	19,082.0
	Total	11,596.9	8,947.0	4,421.7	5,273.3	108.2	701.6	58,016.9	231.3	89,297.0
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	441.3	333.9	167.5	171.3	2.4	15.5	1,289.4	6.5	2,427.7
	2	3,517.9	2,682.8	1,346.9	1,438.1	19.4	124.6	10,414.2	54.5	19,598.4
	3	3,901.1	2,979.5	1,495.2	1,616.3	21.6	138.9	11,596.4	60.9	21,809.9
	4	2,758.1	2,109.5	1,057.4	1,167.8	15.5	99.6	7,821.3	43.7	15,072.9
	5	1,504.9	1,152.4	576.3	647.9	8.7	55.9	4,358.7	24.0	8,328.7
	Total	12,123.3	9,258.1	4,643.3	5,041.4	67.6	434.5	35,479.9	189.6	67,237.6
COLLECTOR	1	489.5	361.4	180.9	149.2	2.7	17.4	1,334.9	5.5	2,541.5
	2	1,255.7	928.9	465.1	391.3	6.9	44.5	3,424.4	14.5	6,531.4
	3	725.6	543.0	272.2	254.3	3.9	25.4	1,977.6	9.5	3,811.5
	4	372.5	278.9	139.8	131.3	2.0	13.0	1,015.2	4.9	1,957.7
	5	985.6	742.6	372.5	370.8	5.4	34.5	2,705.6	14.0	5,230.9
	Total	3,828.9	2,854.9	1,430.5	1,296.9	20.9	134.8	10,457.7	48.4	20,072.9
LOCAL	1	103.3	75.1	37.5	26.5	0.6	3.7	277.9	1.0	525.5
	2	1,053.1	765.4	382.3	270.7	5.8	37.6	2,834.1	10.1	5,359.1
	3	1,356.4	985.8	492.4	348.7	7.5	48.5	3,650.3	12.9	6,902.5
	4	893.6	649.5	324.4	229.7	4.9	31.9	2,404.8	8.5	4,547.3
	5	752.4	546.8	273.1	193.4	4.2	26.9	2,024.8	7.2	3,828.8
	Total	4,158.7	3,022.6	1,509.6	1,069.1	23.0	148.6	11,192.0	39.7	21,163.2
GRAND TOTALS:		31,707.9	24,082.5	12,005.2	12,680.7	219.7	1,419.5	115,146.4	509.0	197,770.7

Table 5.6–9. Daily CO emissions (kg/day) in the ozone NAA by vehicle class, area type and facility type (summer day).

Facility type	Area Type	Vehicle Class								
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	TOTAL
INTERSTATE, FREEWAY, and EXPRESSWAY	1	7,240.8	5,578.6	2,515.6	595.3	2.9	15.6	245.6	149.6	16,344.0
	2	58,369.5	44,921.6	20,253.3	4,885.8	23.8	126.4	1,999.5	1,251.6	131,831.4
	3	40,428.6	31,090.5	14,011.7	3,424.3	16.5	87.7	1,393.4	887.5	91,340.3
	4	29,319.1	22,547.1	10,161.4	2,483.4	12.0	63.6	1,010.5	643.6	66,240.7
	5	17,352.8	13,344.7	6,014.1	1,469.8	7.1	37.7	598.1	380.9	39,205.1
	Total	152,710.7	117,482.4	52,956.1	12,858.6	62.4	331.0	5,247.1	3,313.2	344,961.5
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	4,836.1	3,979.3	1,862.1	482.7	3.0	15.8	255.6	88.0	11,522.6
	2	40,119.9	33,037.9	15,386.5	3,518.0	22.6	119.1	1,843.9	640.1	94,687.9
	3	45,295.1	37,217.0	17,291.8	3,772.2	24.5	128.8	1,965.9	682.4	106,377.8
	4	33,164.0	27,096.0	12,548.2	2,548.7	16.9	87.9	1,312.1	454.2	77,227.9
	5	13,362.1	10,836.4	4,995.1	957.2	6.3	32.9	482.8	165.2	30,838.1
	Total	136,777.1	112,166.6	52,083.8	11,278.8	73.3	384.4	5,860.3	2,029.9	320,654.3
COLLECTOR	1	4,879.2	3,891.9	1,847.8	794.7	3.9	22.1	416.5	129.4	11,985.6
	2	12,560.2	10,059.2	4,769.8	1,969.3	9.9	55.6	1,035.2	324.0	30,783.3
	3	7,536.5	6,145.8	2,897.3	939.6	5.2	28.7	498.6	164.7	18,216.5
	4	3,877.5	3,163.2	1,490.4	477.6	2.7	14.7	253.5	84.0	9,363.6
	5	4,236.6	3,477.8	1,631.9	456.0	2.7	14.6	241.7	82.1	10,143.4
	Total	33,090.0	26,737.9	12,637.2	4,637.2	24.5	135.7	2,445.5	784.4	80,492.4
LOCAL	1	998.0	775.6	370.3	205.9	0.9	5.3	105.6	32.7	2,494.3
	2	10,178.1	7,909.8	3,776.5	2,099.7	9.3	53.7	1,077.0	333.3	25,437.2
	3	13,109.2	10,187.6	4,864.0	2,704.3	11.9	69.1	1,387.2	429.2	32,762.6
	4	8,636.3	6,711.6	3,204.4	1,781.6	7.9	45.5	913.8	282.8	21,583.8
	5	4,374.4	3,399.5	1,623.1	902.4	4.0	23.1	462.9	143.2	10,932.7
	Total	37,296.0	28,984.1	13,838.3	7,694.0	34.0	196.7	3,946.5	1,221.2	93,210.6
GRAND TOTALS:		359,873.8	285,371.0	131,515.4	36,468.5	194.1	1,047.9	17,499.4	7,348.7	839,318.7

Table 5.6–10. Daily CO emissions (kg/day) in Maricopa County by vehicle class, area type and facility type (summer day).

Facility type	Area Type	Vehicle Class								TOTAL
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	
INTERSTATE, FREEWAY, and EXPRESSWAY	1	7,240.8	5,578.6	2,515.6	595.3	2.9	15.6	245.6	149.6	16,344.0
	2	58,369.5	44,921.6	20,253.3	4,885.8	23.8	126.4	1,999.5	1,251.6	131,831.4
	3	40,428.6	31,090.5	14,011.7	3,424.3	16.5	87.7	1,393.4	887.5	91,340.3
	4	29,319.1	22,547.1	10,161.4	2,483.4	12.0	63.6	1,010.5	643.6	66,240.7
	5	36,682.3	28,209.5	12,713.3	3,107.0	15.0	79.6	1,264.3	805.3	82,876.4
	Total	172,040.3	132,347.3	59,655.4	14,495.8	70.3	373.0	5,913.3	3,737.5	388,632.7
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	4,836.1	3,979.3	1,862.1	482.7	3.0	15.8	255.6	88.0	11,522.6
	2	40,119.9	33,037.9	15,386.5	3,518.0	22.6	119.1	1,843.9	640.1	94,687.9
	3	45,295.1	37,217.0	17,291.8	3,772.2	24.5	128.8	1,965.9	682.4	106,377.8
	4	33,164.0	27,096.0	12,548.2	2,548.7	16.9	87.9	1,312.1	454.2	77,227.9
	5	18,708.2	15,171.9	6,993.6	1,340.1	8.9	46.1	675.9	231.3	43,176.1
	Total	142,123.2	116,502.1	54,082.3	11,661.7	75.8	397.6	6,053.5	2,096.0	332,992.2
COLLECTOR	1	4,879.2	3,891.9	1,847.8	794.7	3.9	22.1	416.5	129.4	11,985.6
	2	12,560.2	10,059.2	4,769.8	1,969.3	9.9	55.6	1,035.2	324.0	30,783.3
	3	7,536.5	6,145.8	2,897.3	939.6	5.2	28.7	498.6	164.7	18,216.5
	4	3,877.5	3,163.2	1,490.4	477.6	2.7	14.7	253.5	84.0	9,363.6
	5	10,606.0	8,706.4	4,085.4	1,141.5	6.8	36.5	605.0	205.7	25,393.3
	Total	39,459.5	31,966.5	15,090.7	5,322.7	28.6	157.7	2,808.8	907.9	95,742.3
LOCAL	1	998.0	775.6	370.3	205.9	0.9	5.3	105.6	32.7	2,494.3
	2	10,178.1	7,909.8	3,776.5	2,099.7	9.3	53.7	1,077.0	333.3	25,437.2
	3	13,109.2	10,187.6	4,864.0	2,704.3	11.9	69.1	1,387.2	429.2	32,762.6
	4	8,636.3	6,711.6	3,204.4	1,781.6	7.9	45.5	913.8	282.8	21,583.8
	5	7,271.7	5,651.1	2,698.1	1,500.1	6.6	38.3	769.5	238.1	18,173.5
	Total	40,193.2	31,235.6	14,913.3	8,291.6	36.6	211.9	4,253.1	1,316.1	100,451.5
GRAND TOTALS:		393,816.1	312,051.6	143,741.6	39,771.9	211.3	1,140.2	19,028.6	8,057.5	917,818.8

Table 5.6–11. Daily CO emissions (kg/day) in the ozone NAA by vehicle class, area type and facility type (annual average day).

Facility type	Area Type	Vehicle Class								
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	TOTAL
INTERSTATE, FREEWAY, and EXPRESSWAY	1	6,672.5	5,324.0	2,369.5	514.1	3.1	16.2	251.3	121.6	15,272.3
	2	53,744.6	42,853.5	19,069.8	4,221.6	25.0	131.0	2,046.2	1,016.3	123,107.9
	3	37,200.3	29,653.4	13,191.2	2,958.2	17.3	91.0	1,426.2	720.2	85,257.7
	4	26,977.9	21,504.9	9,566.3	2,145.3	12.6	66.0	1,034.3	522.3	61,829.6
	5	15,967.1	12,727.8	5,661.9	1,269.7	7.4	39.0	612.2	309.1	36,594.3
	Total	140,562.4	112,063.6	49,858.8	11,108.9	65.3	343.2	5,370.2	2,689.4	322,061.9
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	4,748.8	3,987.7	1,807.4	417.0	3.1	16.4	261.6	72.5	11,314.5
	2	39,174.5	32,918.9	14,876.9	3,037.8	23.6	123.4	1,887.1	530.1	92,572.3
	3	44,085.6	36,971.2	16,691.9	3,258.9	25.7	133.4	2,012.0	565.9	103,744.6
	4	31,703.7	26,556.0	11,982.1	2,202.2	17.7	91.1	1,342.9	377.6	74,273.2
	5	12,687.1	10,565.1	4,757.5	827.1	6.7	34.1	494.1	137.7	29,509.3
	Total	132,399.6	110,998.8	50,115.9	9,742.9	76.8	398.5	5,997.6	1,683.8	311,413.9
COLLECTOR	1	4,739.3	3,919.9	1,796.9	686.6	4.1	23.0	426.3	105.4	11,701.5
	2	12,222.7	10,132.5	4,641.4	1,701.3	10.4	57.7	1,059.4	264.0	30,089.4
	3	7,339.3	6,154.7	2,805.7	811.9	5.5	29.8	510.3	135.0	17,792.2
	4	3,774.7	3,167.2	1,443.8	412.6	2.8	15.2	259.5	68.9	9,144.6
	5	4,116.0	3,465.4	1,574.9	393.7	2.8	15.1	247.3	67.6	9,882.9
	Total	32,192.1	26,839.7	12,262.8	4,006.1	25.6	140.7	2,502.7	640.8	78,610.5
LOCAL	1	959.8	780.0	360.0	177.9	1.0	5.5	108.1	26.4	2,418.5
	2	9,788.6	7,954.1	3,670.8	1,813.8	9.7	55.6	1,102.2	269.6	24,664.4
	3	12,607.5	10,244.7	4,727.9	2,336.1	12.5	71.7	1,419.6	347.3	31,767.3
	4	8,305.8	6,749.1	3,114.7	1,539.0	8.2	47.2	935.2	228.8	20,928.1
	5	4,207.0	3,418.6	1,577.7	779.5	4.2	23.9	473.7	115.9	10,600.5
	Total	35,868.7	29,146.4	13,451.1	6,646.3	35.6	203.9	4,038.9	988.0	90,378.9
GRAND TOTALS:		341,022.9	279,048.5	125,688.5	31,504.3	203.3	1,086.3	17,909.5	6,002.0	802,465.3

Table 5.6–12. Daily CO emissions (kg/day) in Maricopa County by vehicle class, area type and facility type (annual average day).

Facility type	Area Type	Vehicle Class								
		LDGV	LDGT1	LDGT2	HDGV	LDDV	LDDT	HDDV	MC	TOTAL
INTERSTATE, FREEWAY, and EXPRESSWAY	1	6,672.5	5,324.0	2,369.5	514.1	3.1	16.2	251.3	121.6	15,272.3
	2	53,744.6	42,853.5	19,069.8	4,221.6	25.0	131.0	2,046.2	1,016.3	123,107.9
	3	37,200.3	29,653.4	13,191.2	2,958.2	17.3	91.0	1,426.2	720.2	85,257.7
	4	26,977.9	21,504.9	9,566.3	2,145.3	12.6	66.0	1,034.3	522.3	61,829.6
	5	33,753.2	26,905.6	11,968.8	2,684.1	15.7	82.5	1,294.1	653.4	77,357.5
	Total	158,348.5	126,241.4	56,165.7	12,523.3	73.6	386.7	6,052.1	3,033.7	362,825.0
PRINCIPAL ARTERIAL and MINOR ARTERIAL	1	4,748.8	3,987.7	1,807.4	417.0	3.1	16.4	261.6	72.5	11,314.5
	2	39,174.5	32,918.9	14,876.9	3,037.8	23.6	123.4	1,887.1	530.1	92,572.3
	3	44,085.6	36,971.2	16,691.9	3,258.9	25.7	133.4	2,012.0	565.9	103,744.6
	4	31,703.7	26,556.0	11,982.1	2,202.2	17.7	91.1	1,342.9	377.6	74,273.2
	5	17,763.0	14,792.0	6,661.0	1,158.0	9.3	47.8	691.7	192.8	41,315.7
	Total	137,475.6	115,225.8	52,019.3	10,073.9	79.4	412.1	6,195.3	1,738.9	323,220.2
COLLECTOR	1	4,739.3	3,919.9	1,796.9	686.6	4.1	23.0	426.3	105.4	11,701.5
	2	12,222.7	10,132.5	4,641.4	1,701.3	10.4	57.7	1,059.4	264.0	30,089.4
	3	7,339.3	6,154.7	2,805.7	811.9	5.5	29.8	510.3	135.0	17,792.2
	4	3,774.7	3,167.2	1,443.8	412.6	2.8	15.2	259.5	68.9	9,144.6
	5	10,304.2	8,675.3	3,942.6	985.7	7.1	37.9	619.2	169.2	24,741.1
	Total	38,380.3	32,049.7	14,630.5	4,598.0	29.9	163.5	2,874.6	742.4	93,468.8
LOCAL	1	959.8	780.0	360.0	177.9	1.0	5.5	108.1	26.4	2,418.5
	2	9,788.6	7,954.1	3,670.8	1,813.8	9.7	55.6	1,102.2	269.6	24,664.4
	3	12,607.5	10,244.7	4,727.9	2,336.1	12.5	71.7	1,419.6	347.3	31,767.3
	4	8,305.8	6,749.1	3,114.7	1,539.0	8.2	47.2	935.2	228.8	20,928.1
	5	6,993.4	5,682.8	2,622.6	1,295.8	6.9	39.8	787.5	192.6	17,621.4
	Total	38,655.1	31,410.6	14,496.0	7,162.6	38.3	219.8	4,352.7	1,064.8	97,399.8
GRAND TOTALS:		372,859.4	304,927.4	137,311.5	34,357.8	221.3	1,182.0	19,474.6	6,579.8	876,913.9

5.7 Quality assurance process

5.7.1 VMT estimates

Normal quality assurance procedures, including extensive automated consistency checks, were used by ADOT in developing the 2002 HPMS data. These data were submitted to the Federal Highway Administration in October 2003.

5.7.2 Emission factor estimates

The quality assurance (QA) process performed on the MOBILE6.2 analyses included accuracy, completeness, and reasonableness checks. For accuracy and completeness, a system was used that included a two-layer, independent reviewer set-up. All hard copy and computer-based data entries as well as all calculations procedures were checked independently for accuracy and completeness by two different reviewers. Any errors found were corrected and the changes were then rechecked by the reviewers.

The entire onroad mobile source portion of the 2002 periodic ozone precursor inventory was reviewed by MAG staff that did not directly participate in its development. All comments were addressed.

5.7.3 Quality review of the 2002 periodic ozone precursor emissions inventory

The draft onroad mobile source portion of the 2002 periodic ozone precursor emissions inventory was reviewed using published EPA quality review guidelines for base year emission inventories (EPA Document 450/4-91-022, September 1991). The procedural review (Levels I, II, and III) included checks for completeness, consistency, and the correct use of appropriate procedures.

Additionally, the draft onroad mobile source portion of the 2002 periodic ozone precursors emissions inventory for the ozone nonattainment area was compared with the onroad mobile source portions of the 1990, 1993, 1996, and 1999 base year and periodic emissions inventories. The results are in Table 5.7–1. Estimates for Maricopa County in its entirety and estimates for an annual average day were not prepared for previous inventories, so no comparison is possible for those portions of this inventory.

Table 5.7–1. Comparison of daily emissions from onroad mobile sources and vehicle miles traveled (VMT) in the ozone nonattainment area, 1990–2002.

Year of analysis	Onroad VOC emissions (lb/day)	Onroad NO _x emissions (lb/yr)	Onroad CO emissions (lb/yr)	Vehicle miles traveled (VMT)
1990	300,218	286,243	2,005,220	42,545,983
1993	239,186	288,992	1,708,688	46,555,338
1996	190,283	285,692	1,243,095	51,329,514
1999	180,890	294,299	1,268,227	55,934,173
2002	165,922	399,742	1,850,382	67,524,299

While the VMT increases over time, the modeled onroad CO and NO_x emissions decrease or remain relatively constant between 1990 and 1999 because of the implementation of control measures designed to reduce onroad emissions such as I/M program, cleaner gasoline, cleaner vehicle technologies, etc. This trend would have continued if MOBILE5a had been used for the 2002 inventory. Significant increases for NO_x and CO are modeled between 1999 and 2002 due to the use of MOBILE6.2 in the 2002 analysis versus MOBILE5a in the 1999 and previous analyses. It is also important to note that the base case emissions from the Ozone Maintenance Plan may not match those in the periodic inventories because of a different year modeled and different modeling domain size.

As an additional QA check, the average miles per gallon estimate was derived using average annual daily VMT estimates and gasoline sales from ADOT. The results of that QA check may be found in Appendix 5.5.

5.8 References

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