



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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Michael R. Pence  
Governor

Thomas W. Easterly  
Commissioner

July 2, 2013

Ms. Susan Hedman  
Regional Administrator  
U.S. Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3950

Dear Ms. Hedman:

Re: MOBILE6.0 to MOVES MVEB  
Replacement Update to the Maintenance  
Plan for the 1997 8-Hour Ozone Standard  
for Allen County, Indiana

The Indiana Department of Environmental Management (IDEM) submits the enclosed MOBILE6.0 to Motor Vehicle Emissions Simulator (MOVES) Motor Vehicle Emissions Budget (MVEB) replacement update to the maintenance plan for the 1997 8-hour ozone standard for Allen County, Indiana. The United States Environmental Protection Agency (U.S. EPA) approved the *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Basic Nonattainment Area*, for Allen County, Indiana, submitted by IDEM on May 30, 2006, with an effective date of February 12, 2007. IDEM requests that the United States Environmental Protection Agency (U.S. EPA) process this final submittal for approval into Indiana's State Implementation Plan.

IDEM provided an opportunity for a public hearing on the MVEB replacement update to the maintenance plan for the 1997 8-hour ozone standard for Allen County, Indiana maintenance area if a public hearing request was received by June 4, 2013. A hearing was scheduled for June 11, 2013. IDEM received no public comments during the public notice process. Documents related to the public participation process are included in Appendix C of this submittal.

This MOBILE6.0 to MOVES MVEB replacement update incorporates onroad emission estimates and revised MVEBs using U.S. EPA's recently adopted MOVES model. The onroad emission estimates were calculated using the MOVES-based emission factors and data extracted from the Allen County, Indiana, area's travel-demand model.

MVEBs are being revised in anticipation of the mandatory use of the MOVES model in future transportation conformity determinations. Preliminary use of the new model indicates that emission estimates can be considerably different than similar calculations using MOBILE6.0, which was used to create the MVEBs in the original 1997 8-hour ozone maintenance plan.

Onroad safety margins, established through the interagency consultation process, are included for nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs). These onroad safety margins are allocated to onroad emission estimates in order to account for the wide array of assumptions that are factored into the calculation process. With the addition of onroad safety margins applied to mobile sources, the Allen County, Indiana, ozone maintenance area will continue to remain well below the overall safety margins for all sources. MVEBs are also constrained to ensure that total NO<sub>x</sub> and VOC emissions (i.e., all source categories) do not exceed attainment year emissions to ensure continued maintenance of the 1997 8-hour ozone standard.

This submittal consists of one (1) hard copy of the required documentation. An electronic version of the submittal in PDF format that is identical to the hard copy has been sent to Pamela Blakley, Chief of U.S. EPA Region 5's Control Strategies Section.

IDEM respectfully requests that U.S. EPA proceed with review of the MOBILE6.0 to MOVES MVEB replacement update and revised transportation conformity budgets and approval into Indiana's State Implementation Plan for the Allen County, Indiana, maintenance area under the 1997 8-hour ozone standard. If you have any questions or need additional information, please contact Scott Deloney, Chief, Air Programs Branch, at (317) 233-5694.

Sincerely,



Keith Baugues  
Assistant Commissioner  
Office of Air Quality

KB/sad/ghf

Enclosures:

Onroad Emissions MOBILE6.0 to MOVES Replacement Submittal for the Allen County, Indiana, Maintenance Area under the 1997 8-Hour Ozone Standard and Appendices

cc: Doug Aburano, U.S. EPA Region 5 (w/ enclosures)  
Steve Rosenthal, U.S. EPA Region 5 (no enclosures)  
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Scott Deloney, IDEM (no enclosures)  
Gale Ferris, IDEM (w/ enclosures)

# Onroad Emissions MOBILE6.0 to MOVES Replacement Submittal

For the Allen County, Indiana,  
Maintenance Area under the 1997  
8-Hour Ozone Standard

July 2013

Final

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## **Introduction**

On May 30, 2006, the Indiana Department of Environmental Management (IDEM) submitted a *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Basic Nonattainment Area*, for Allen County, Indiana. The United States Environmental Protection Agency (U.S. EPA) subsequently approved the Indiana redesignation of Allen County, Indiana, to attainment for the 1997 8-hour ozone standard on January 11, 2007 (72 FR 1292), with an effective date of February 12, 2007. Onroad emissions for the May 30, 2006, submittal were calculated using MOBILE6.0. U.S. EPA has encouraged mobile source stakeholders to transition to the new Motor Vehicle Emissions Simulator (MOVES) model as expeditiously as possible. Therefore, IDEM is providing this MOBILE6.0 to MOVES replacement update to the previously submitted 1997 8-hour ozone maintenance plan for the Allen County, Indiana, ozone maintenance area that incorporates MOVES-based onroad emissions.

## **Emission Inventory**

Table 4.1 titled, "2004 and Projected NO<sub>x</sub> and VOC Emissions Trends for All Sources in Allen County" was included in Appendix B of the original Redesignation Petition and Maintenance Plan. Table 4.1 – A (to be considered a replacement of the table included in Appendix B) has been revised to incorporate updated onroad emission estimates for nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) for the years 2004, 2010, and 2020; it results in a different overall safety margin for the area.

**Table 4.1**  
**2004 and Projected NO<sub>x</sub> and VOC Emissions Trends for All Sources in Allen County**  
**(MOBILE6.0-based Onroad Emissions)**

<b>(Tons per Day)</b>			
<b>Sector</b>	<b>2004 VOC</b>	<b>2010 VOC</b>	<b>2020 VOC</b>
Area	18.99	20.00	22.17
Non-road	10.10	7.02	6.57
Onroad	13.86	9.14	5.57
Point	9.33	7.91	9.74
<b>Total</b>	<b>52.28</b>	<b>44.07</b>	<b>44.05</b>
<b>Sector</b>	<b>2004 NO<sub>x</sub></b>	<b>2010 NO<sub>x</sub></b>	<b>2020 NO<sub>x</sub></b>
Area	3.89	4.09	4.33
Non-road	13.01	9.84	6.98
Onroad	23.17	14.57	6.19
Point	4.88	4.69	4.78
<b>Total</b>	<b>44.94</b>	<b>33.19</b>	<b>22.28</b>

**Table 4.1 – A**  
**2004 and Projected NO<sub>x</sub> and VOC Emissions Trends for All Sources in Allen County**  
**(MOVES-based Onroad Emissions)**

<b>(Tons per Day)</b>			
<b>Sector</b>	<b>2004 VOC</b>	<b>2010 VOC</b>	<b>2020 VOC</b>
Area	18.99	20.00	22.17
Non-road	10.10	7.02	6.57
Onroad	<b>14.86</b>	<b>8.97</b>	<b>3.93</b>
Point	9.33	7.91	9.74
<b>Total</b>	<b>53.28</b>	<b>43.90</b>	<b>42.41</b>
Overall Safety Margin	N/A	N/A	<b>10.87</b>
<b>Sector</b>	<b>2004 NO<sub>x</sub></b>	<b>2010 NO<sub>x</sub></b>	<b>2020 NO<sub>x</sub></b>
Area	3.89	4.09	4.33
Non-road	13.01	9.84	6.98
Onroad	<b>37.95</b>	<b>22.09</b>	<b>8.45</b>
Point	4.88	4.69	4.78
<b>Total</b>	<b>59.73</b>	<b>40.71</b>	<b>24.54</b>
Overall Safety Margin	N/A	N/A	<b>35.19</b>

Onroad emission estimates in Table 4.1 – A were calculated using U.S. EPA's MOVES model-produced emission factors and data extracted from the area's travel-demand model. The MOVES model implements a significantly different approach to emissions estimation than the previous model (MOBILE6.0). Preliminary use of the MOVES model indicates that emission estimates can be considerably different than similar calculations using MOBILE6.0, which was used to create the original Motor Vehicle Emission Budgets (MVEBs) for the Allen County, Indiana, 1997 8-hour ozone nonattainment area. A general summary of the MOVES methodology used in this area can be found in Appendix A. In addition, MOVES input and output files are being provided electronically with this submittal. Growth and control strategy assumptions for non-mobile sources (i.e. area, nonroad, and point) from the original submittal for the years 2004, 2010, and 2020 were developed before the economic challenges of the last several years. Because of this, the factors included in the original submittal may project more growth than will actually occur in the future. As a result, the growth and control strategy assumptions for the non-mobile sources for the years 2004, 2010, and 2020 continue to be valid and do not affect the overall conclusions of the plan.

Onroad safety margins have been included for onroad emission estimates to accommodate the wide array of assumptions that are factored into the calculation process. Since assumptions change over time, it is necessary to have an onroad safety margin that will accommodate the impact of refined assumptions in the process. The plan continues to meet all applicable Clean Air Act (CAA) requirements as the revised emission inventories clearly illustrate that total NO<sub>x</sub> and VOC emissions in the Allen County, Indiana, 1997 8-hour ozone maintenance area will



continue to decline leading to local reductions between 2004 (base year) and 2020 (maintenance plan horizon budget year).

### **Transportation Conformity Budgets**

Table 5.2 titled, “Emission Estimations for On-Road Mobile Sources” was included on Page 20 of the original Redesignation Petition and Maintenance Plan for the Allen County, Indiana, 1997 8-hour ozone maintenance area. Table 5.2 – A (to be considered a replacement of Table 5.2) has been revised to incorporate U.S. EPA’s MOVES model-produced emission factors and data extracted from the region’s travel-demand model.

**Table 5.2**  
**Emission Estimations for On-Road Mobile Sources**  
**(MOBILE6.0-based Onroad Emissions)**

	<b>2004</b>	<b>2010</b>	<b>2020</b>
VMT	9,394,476	10,245,546	11,833,451
VOC (tons/day)	13.86	9.14	5.57
NO <sub>x</sub> (tons/day)	23.17	14.57	6.19

**Table 5.2 – A**  
**Emission Estimations for Onroad Mobile Sources**  
**(MOVES-based Onroad Emissions)**

	<b>2004</b>	<b>2010</b>	<b>2020</b>
VOC (tons/day)	14.86	8.97	3.93
NO <sub>x</sub> (tons/day)	37.95	22.09	8.45

Table 5.3 titled, “Mobile Vehicle Emission Budgets” was also included on Page 20 of the original Redesignation Petition and Maintenance Plan for the Allen County, Indiana, 1997 8-hour ozone maintenance area. Table 5.3 – A (to be considered a replacement of Table 5.3) has been revised to incorporate MVEBs calculated using U.S. EPA’s MOVES model-produced emission factors and data extracted from the area’s travel-demand model as detailed in Table 5.2 – A.

**Table 5.3**  
**Mobile Vehicle Emission Budgets**  
**(MOBILE6.0-based Onroad Emissions)**

	<b>2020</b>
VOC (tons/day)	6.5
NO <sub>x</sub> (tons/day)	7.0

**Table 5.3 – A**  
**Motor Vehicle Emission Budgets**  
**(MOVES-based Onroad Emissions)**

	2020
VOC (tons/day)	4.52
NO <sub>x</sub> (tons/day)	9.72

Through the interagency consultation process, it was determined that a maintenance plan horizon year budget of 2020, would be appropriate. The interagency consultation group approved onroad margins of safety of fifteen percent (15%) for both VOC and NO<sub>x</sub> onroad emission estimates for the year 2015. A summary of this interagency consultation discussion can be found in Appendix B. These revised emission inventories clearly illustrate that onroad VOC and NO<sub>x</sub> emissions in the Allen County, Indiana, 1997 8-hour ozone maintenance area will continue to decline leading to local reductions between 2004 (base year) and 2020 (maintenance plan horizon budget year).

Furthermore, when compared to the overall safety margin as defined in the Code of Federal Regulations (CFR) at 40 CFR 93.101, it is evident the onroad safety margin allocation is reasonable and appropriate. More specifically, even with the allocation of an onroad safety margin to mobile sources, emissions will continue to remain well below the overall safety margin for all sources as detailed in Table 4.1 – A. MVEBs are constrained to ensure that the total emissions (i.e., all source categories) do not exceed the 2004 attainment year emissions of either VOC or NO<sub>x</sub>, thereby ensuring continued maintenance of the 1997 8-hour ozone standard.

### **Conclusion**

This MOBILE6.0 to MOVES replacement update to the previously submitted *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Basic Nonattainment Area*, for Allen County, Indiana incorporates onroad emission estimates and a revised MVEB using U.S. EPA's recently adopted MOVES model. MVEBs have been revised in anticipation of the mandatory use of the MOVES model in future transportation conformity determinations. The onroad emission estimates were calculated using the MOVES-based emission factors and data extracted from the area's travel-demand model. Onroad safety margins for VOCs and NO<sub>x</sub>, established through the interagency consultation process, are included in order to account for the wide array of assumptions that are factored into the calculation process. MVEBs are also constrained to ensure that total VOC and NO<sub>x</sub> emissions (i.e., all source categories) do not exceed attainment year (2004) emissions to ensure continued maintenance of the 1997 8-hour ozone standard. With the addition of MOVES-based onroad safety margins applied to mobile sources, the Allen County, Indiana, ozone maintenance area will continue to remain well below the overall safety margins for all sources into the future. As such, the 1997 8-hour ozone maintenance plan for Allen County, Indiana, continues to meet all applicable CAA requirements.



# Appendix A

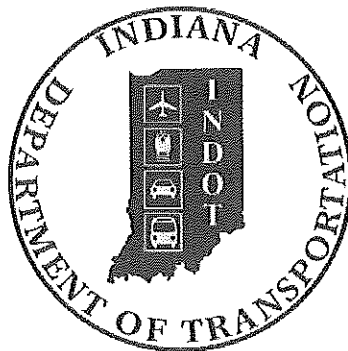
## Allen County, Indiana, Maintenance Area MOVES Methodology

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Allen County  
MOVES2010a Input Data and  
Parameters

INDOT Planning Contract

Final Report  
October 4, 2012



**CDM**  
**Smith**

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**Overview:**

This report is being written to document the input parameters for a set of MOVES2010a runs for the Allen County 8-hour Ozone Maintenance Area. This report contains a discussion on the intended input settings used in MOVES2010a and the development of the input datasets. These MOVES2010a runs are intended to develop a default set of emission rates that can be used for conformity determination and is part of a statewide effort being conducted by the Indiana Department of Transportation (INDOT).

Throughout this report references are made to MOVES 2010a codes for two types of data. The values for the source type codes are shown in Table 1. The values for the road type codes are shown in Table 2. MOVES2010a input settings and assumptions for this effort are shown in Appendix A.

**Table 1: MOVES2010a Source Type Codes**

sourcetypeid	Description
11	Motorcycles
21	Passenger Car
31	Passenger Truck
32	Light Commercial Truck
41	Intercity Bus
42	Transit Bus
43	School Bus
51	Refuse Truck
52	Single Unit Short-haul Truck
53	Single Unit Long-haul Truck
54	Motor Home
61	Combination Short-haul Truck
62	Combination Long-haul Truck

**Table 2: MOVES2010a Road Type Codes**

roadtypeid	Description
1	Off Network
2	Rural Restricted Access
3	Rural Unrestricted Access
4	Urban Restricted Access
5	Urban Unrestricted Access

**Vehicle Age Distribution:**

The vehicle age distributions for MOVES source types 21, 31, and 32 (cars, passenger trucks, and light commercial vehicles respectively) were developed through an analysis of Indiana's 2009 vehicle registration data. The analysis was performed by Eastern Research Group (ERG) under contract to the Lake Michigan Air Directors Consortium (LADCO). ERG was provided with vehicle identification numbers (VIN) for vehicles in Indiana.

There were approximately 6.37 million VINs in the statewide data set. Out of these, approximately 1.3 million returned errors. Of these, approximately 200,000 errors were deemed non-critical. This means that the model year and vehicle type assigned to the records were most likely correct despite there being an error in the VIN decoding. These records were included in ERG's analysis. The remaining errors were considered critical enough to call into question the accuracy of the model year and vehicle types. These critical errors were excluded from ERG's analysis.

In all, approximately 5.2 million VINs from around the state were used in the analysis. Each VIN was associated to a specific county. ERG then developed age distributions for each county in the state along with seven combination areas comprised of two or more counties each. Additional information on the methodology used to develop the vehicle age distributions can be found in a May 28, 2010 report written by ERG for LADCO titled MOBILE6 and MOVES Registration Distribution Calculations for Indiana Registration Data. Each set of age distributions was provided in both MOBILE6 and MOVES formats. The MOVES formatted data will be used for these MOVES2010a runs.

Due to limitations in ERG's VIN decoder, it was not possible to develop vehicle age distributions for any source types other than 21, 31, and 32 from the vehicle registration data. For all other source types, MOVES2010a default vehicle age distributions specific to each source types were used. This includes motorcycles and all heavy vehicles. Vehicle age distributions for all source types were kept constant for all future years. The vehicle age distributions for Allen County are shown in Appendix B of this report.

#### **Vehicle Population:**

The vehicle populations for source types 21, 31, and 32 were developed directly from the vehicle registration data. All valid records that were identified from the vehicle registration data set were used to determine the number of vehicles for each of these three source types. The VIN decoded data provided to INDOT contained vehicle types according to MOBILE6.2 vehicle categories. There is a direct correlation between MOVES source type 21 (cars) and the MOBILE6.2 vehicle type LDV. All valid LDV records (those records not excluded from the vehicle age distribution analysis due to errors as was described in the section on Vehicle Age Distribution in this report) were counted in the vehicle population.

There is not a direct correlation between MOVES source types 31 (passenger trucks) and 32 (light commercial vehicles) and the MOBILE6.2 light truck vehicle types (LDT1, LDT2, LDT3, and LDT4). All valid records from the vehicle registration data set for MOBILE6.2 light duty trucks were counted in the vehicle populations. The light duty trucks were distributed between MOVES source types 31 and 32 as per the Environmental Protection Agency's (EPA) guidance documented in Table A.1 of the appendix of the Technical Guidance on the Use of MOVES2010 for Emission Inventory Preparation in State Implementation Plans and Transportation Conformity. The guidance provides two sets of factors for distributing MOBILE6.2 light trucks between MOVES source types 31 and 32. These are based on fuel type and are shown in Table 3.

**Table 3: Distribution of MOBILE6.2 Light Duty Trucks into MOVES Source Types**

Fuel	Source Types	
	31	32
Gas	78%	22%
Diesel	42%	58%

As per ERG's assumption documented in MOBILE6 and MOVES Registration Distribution Calculations for Indiana Registration Data, all light duty trucks that did not have a fuel type identified were counted as diesel trucks. This was to prevent an underestimation of diesel trucks and their related emissions.

Since only valid records from the vehicle registration data were used to calculate vehicle populations for source types 21, 31, and 32, it is reasonable to assume that some of the erroneous records that were discarded from the analysis actually belonged to these source types. The nature of these errors is not that the vehicle does not exist. Rather, it is that the vehicle could not be properly identified with any sense of certainty. It was therefore necessary to adjust the vehicle populations calculated from vehicle registration data to compensate for these discarded records. Based on an analysis of the error rate reported by ERG, vehicle populations for source types 21, 31, and 32 were increased by 5.8 percent.

Vehicle populations were not able to be developed directly from the vehicle registration data for some source types. This was due to the limitations in the VIN decoder used by ERG to process the vehicle registration data. Vehicle populations for all other source types (motorcycles and heavy vehicles) were derived by applying the Mileage Accumulation Rate (MAR) method documented in EPA's Technical Guidance on the Use of MOVES2010 for Emission Inventory Preparation in State Implementation Plans and Transportation Conformity, Section 3.3 Source Type Population.

The default MARs were extracted from MOVES by running MOVES for a single pollutant and a single year for all vehicles, fuels, months, days, and hours. The activity output was set to report both distance and population. A ratio of population to vehicle-miles-traveled (VMT) was calculated from these outputs. The ratios were calculated for each source type.

The Northeast Indiana Regional Coordinating Council (NIRCC), which is the metropolitan planning organization (MPO) for Allen County, provided VMT by MOVES road types extracted from their travel demand model's base year. Since the default MARs in MOVES vary by year (but not by location), the MOVES run that was executed to extract the MARs was run for a year consistent with the travel demand model's base year. This resulted in MARs that could be applied directly to the validated VMTs reported by the travel demand model. The travel demand model VMTs were converted into annual VMT and distributed by vehicle types using statewide default VMT distribution factors documented in this report in the section on Default VMT Distributions. The MARs were then applied to the annual vehicle type VMTs. The result was an estimated vehicle population for each source type for the travel demand model's base year. Since the vehicle populations for source types 21, 31, and 32 were developed directly from the vehicle registration data, the population estimates derived for those source types using the MAR method were discarded and the observed data were used instead.

Future year vehicle populations were developed base on socioeconomic growth rates for the maintenance area. The MPO provided base year and horizon year population and employment data for the area. Annual growth rates were calculated for population growth and employment growth individually. Population growth rates were then used to grow the light vehicle populations (source types 11, 21, 31, and 32). Employment growth rates were used to grow the heavy vehicle populations (source types 41, 42, 43, 51, 52, 53, 54, 61, and 62). Vehicle populations were calculated for every year from 2008 to 2040. These vehicle populations for Allen County are shown in Appendix C.

**Meteorological Data:**

The default set of hourly temperatures and hourly relative humidity was developed using EPA's data converters for changing MOBILE6.2 minimum / maximum temperatures and absolute humidity to the MOVES equivalent formats. The values for the MOBILE6.2 inputs were taken from the Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-hour Ozone Basic Nonattainment Area, Appendix C, developed by the Indiana Department of Environmental Management in May, 2006. The MOVES formatted meteorological data for Allen County are presented in Appendix D of this report.

**Default VMT Distributions:**

As part of this effort, INDOT developed a default set of VMT distribution factors by Highway Performance Monitoring System (HPMS) vehicle type and by MOVES road type. These distribution factors were developed by analyzing four consecutive years of continuous traffic count data ending in 2010 for twenty permanent traffic count stations throughout Indiana. The stations were selected to provide a spread of locations corresponding to each of the four MOVES road types. Furthermore, these stations were selected from among sites that were concentrated in nonattainment and maintenance areas. In some cases, data from the requested site were either partially or completely unavailable. An inventory of the sites used to develop the distributions is shown in Table 4.

The vehicle counts reported at each station were provided by vehicle class. These were aggregated into the six basic HPMS vehicle types: motorcycle, passenger car, light truck, bus, single-unit heavy truck, and combination heavy truck. The distribution of VMT by vehicle type was calculated for each road type by taking each vehicle type's percentage of total traffic. These default statewide factors are shown in Appendix E.



**Table 4: Inventory of Permanent Count Stations**

SiteID	City	County	Location	Road Type	Data Quality
3000	MUNCIE	DELAWARE	SR 332 RM 0.5	3	Closed since 9/26/2006. No data.
3200	CARMEL	HAMILTON	US 31 RM 125.7	5	Good
3300	INDY WEST	MARION	I 465 MM 10.0	4	Closed since 9/1/10
4000	GARY	LAKE	I 80 / I 94 MM 6.0	4	Only 2010 data passed QC
4500	LAPORTE	LAPORTE	SR 2 RM 65.2	3	Good
5600	SELLERSBURG	CLARK	I 65 MM 8.0	4	Bad sensors. Not usable.
6100	EVANSVILLE	GIBSON	I 64 MM 27.9	2	Good
0105	TERRE HAUTE	VIGO	US 41 RM 104.2	3	Good-closed 11/13/08-5/13/09
0201	MIDDLEBURY	ELKHART	SR 120 RM 13.9	3	Good- closed 8/3/10-12/6/10
0210	FORT WAYNE	ALLEN	I-69 0.53 mi N of SR 3	4	Good
0303	MUNCIE	DELAWARE	US 35 RM 44.5	5	Good
0327	DALEVILLE	DELAWARE	I 69 MM 31.4	2	Good-built in 12/10/2007
0403	SOUTH BEND	ST. JOSEPH	US 20 RM 77.1	4	Good
0501	INDY SOUTH	MARION	SR 37 RM 143.5	5	Good-closed 5/22/09-6/1/09
0502	MARTINSVILLE	MORGAN	SR 67 RM 80.6	3	Good
0507	SEYMOUR	JACKSON	I 65 MM 47.0	2	Good
0602	HAZLETON	GIBSON	SR 56 RM 0.6	3	Good
0603	DUBOIS	DUBOIS	SR 56 RM 53.3	3	Good- closed 10/16/08-3/20/09
0608	EVANSVILLE	VANDEBURGH	SR 66 RM 23.5	5	Good
1315	I 70	MARION	I 70 MM 83.5	4	Closed 5/17/06-3/24/08

**Default Hourly Distributions:**

The same set of twenty permanent traffic count locations discussed in the section on Default VMT Distributions was analyzed to develop a set of hourly distribution factors. These factors were calculated by road type, by HPMS vehicle type. Hourly factors were only calculated for the average weekday. The hourly distribution pattern for each traffic count location was reviewed. Any data that appeared to reflect either an error in the data or an outlier of behavior were removed to prevent bias in the data. The following data were excluded from the analysis:

- Bus data from count stations 0105 and 0603 were excluded due to abnormal midnight peaks in the data;
- An abnormal relationship between passenger cars and light duty trucks at count station 4500 prompted the exclusion of all data from this location due to questions of reliability;
- Peak spreading behavior observed at count station 4000 from traffic related to Chicago was considered to be too unique to be included in a default statewide data set; and,
- Combination truck traffic from station 3200 was excluded due to too much overnight traffic when compared to other vehicles and other stations.

Furthermore, traffic patterns reported by those count stations corresponding to road type 3 (3000, 4500, 0105, 0201, 0502, 0602, and 0603) had a tendency to over represent long distance travel. This was most likely the result of statewide permanent count stations focusing primarily on higher order facilities. Rural collectors and local streets are less likely to reflect long distance travel. The hourly distributions for road type 3 (rural unrestricted access) were adjusted to better account for traffic behavior on lower order facilities in rural areas. A sample of traffic count data from Morgan County, IN was used to introduce more local traffic behavior in the road type 3 hourly distributions. An analysis of the Morgan County data showed a pattern more consistent with AM and PM peaking characteristics reflecting local commuting traffic on collectors and local streets for passenger cars and light duty trucks. The Morgan County data for passenger cars and light duty trucks on collectors and local streets were weighted and added to the road type 3 data set. This analysis assumed that rural collectors and local streets accounted for 20 percent of all VMT for road type 3.

The statewide default hourly distribution factors are presented in Appendix F.

**Default Daily and Monthly Distributions:**

Default daily and monthly distribution factors were calculated from INDOT's official count adjustment factors which are more commonly used to develop AADT from raw traffic counts. These factors are based on the set of daily traffic counts collected from all permanent count stations throughout the state. The daily distribution factors determine what percentage of VMT is occurring on weekdays and what percentage is occurring on weekends. The monthly distribution factors determine what percentage of annual VMT is occurring in each month of the year. The statewide default daily distribution factors are shown in Appendix G. The statewide default monthly distribution factors are shown in Appendix H.

**Ramp Fractions:**

The ramp fractions represent the percentage of vehicle-hours-traveled (VHT) for road types 2 (rural restricted access) and 4 (urban restricted access) occurring on the ramps associated with those road types. These fractions were calculated based on the percentage of VHT occurring on ramps reported by the base year travel demand model. These ramp fractions are reported in Appendix I.

## Appendix A

### *Number of Runs:*

Input Item	Ozone
Years	2004, 2010, 2015, 2020, 2025, 2030, 2035, 2040
Pollutants/ Processes	Volatile Organic Compound (VOC), NO <sub>x</sub> , and supporting
Meteorology	Summer
# of MOVES runs	8

*General Parameters:*

<b>MOVES Screen</b>	<b>Input Item</b>	<b>Ozone</b>
<b>Description</b>	Description	User Choice
<b>Scale</b>	Domain/Scale	County
	Calculation Type	Emission Rate
<b>Time Spans</b>	Time Aggregation Level	Hour
	Year	2004, 2010, 2015, 2020, 2025, 2030, 2035, 2040
	Months	July
	Days	Weekday
	Hours	Select All
<b>Geographic Bounds</b>	Geographic Bounds	Allen County
<b>Vehicles</b>	Vehicles	All Gas and Diesel Combinations
<b>Road Type</b>	Road Type	Select All
<b>Pollutants/ Processes</b>	Pollutants/ Processes	VOC, NOx, and supporting
<b>General Output</b>	Database Name	Allen Ozone
	Units	Select "Grams" and "Miles" and "Million BTU"
	Activity	Distance, Population
<b>Output Emissions Detail</b>	On Road	Select "Source Use Type" and "Road Type"



County Data Manager

County Data Manager Input	Excel Sheet Tab Name	Ozone
Source (Vehicle) Type Population	sourceTypeYear	Local Registration for Source Types 21, 31, and 32; Estimated population using default MOVES mileage accumulation rates and local VMT for all other source types. Future year vehicle populations based on population growth rates for source types 11, 21, 31, and 32. Employment growth used for all other source types.
Vehicle Type VMT (by 13 MOVES Vehicle Types)	HPMSVTypeYear	Statewide default vehicle distributions across road types developed by INDOT using an analysis of permanent count station data from a statewide data set.
	MonthVMTFraction	Statewide default monthly fractions developed by INDOT using an analysis of permanent count station data from a statewide data set.
	DayVMTFraction	Statewide default daily fractions developed by INDOT using an analysis of permanent count station data from a statewide data set.
	HourVMTFraction	Statewide default hourly fractions developed by INDOT using an analysis of permanent count station data from a statewide data set.
Average Speed Distribution (% of VHT in each 5 mph speed bin)	avgSpeed Distribution	National defaults.
Road Type Distribution (VMT by 5 MOVES Road Types)	roadType Distribution	Calculated from local VMT data. Use travel demand model base year distributions for all years.
Age Distribution (Vehicle Population by Age of Vehicle)	sourceTypeAge Distribution	Local age distributions developed from vehicle registration data for source types 21, 31, and 32. Default MOVES age distributions for all other source types.
Ramp Fraction	RoadType	Based on local travel demand model.
Meteorology Data	ZoneMonthHour	MOBILE6 Summer Met Data Converted to MOVES format
Fuel (% of Market Share by Fuel Type)	FuelFormulation	MOVES Defaults
	FuelSupply	Allen County MOVES Defaults for Summer (check if varies among counties)
I/M Program	IMCoverage	No Program

# Appendix B

Vehicle Age Distributions for Allen County:

	Source Types													
ageid	11	21	31	32	41	42	43	51	52	53	54	61	62	
0	0.2109690540	0.0209858994	0.0101749760	0.0244923211	0.0643023355	0.0545743076	0.0622220643	0.0494240790	0.0588526168	0.0787544027	0.0615095870	0.0535634660	0.0670845256	
1	0.1921154969	0.0400652146	0.0384587728	0.0566999054	0.0626728412	0.0531913309	0.0606452875	0.0481716155	0.0573612230	0.0767586735	0.0599508636	0.0535634660	0.0670845256	
2	0.1573471585	0.0505894810	0.0438998082	0.0566635126	0.0624853859	0.0530322328	0.0604638952	0.0480275345	0.0571896519	0.0765290827	0.0597715492	0.0541045093	0.0677621447	
3	0.1359771581	0.0503728955	0.0432885906	0.0538248781	0.0624229593	0.0529792497	0.0604034894	0.0479795509	0.0571325186	0.0764526251	0.0597118340	0.0575579884	0.0720873878	
4	0.1058454735	0.0566720338	0.0736697028	0.0758788849	0.0617389906	0.0523970560	0.0597397140	0.0474523026	0.0565046834	0.0756124785	0.0590556596	0.0564182312	0.0706599203	
5	0.0750909142	0.0594005376	0.0674256951	0.0667806973	0.0559170498	0.0474575929	0.0541080614	0.0429789769	0.0511779950	0.0684845018	0.0534884926	0.0489290859	0.0612802835	
6	0.0476805323	0.0595824379	0.0703259827	0.0643423830	0.0468365056	0.0397508123	0.0453212873	0.0359994879	0.0428670388	0.0573630896	0.0448023279	0.0366034411	0.0458432683	
7	0.0331026886	0.0638267771	0.0782837967	0.0719484679	0.0425786431	0.0361370941	0.0412011709	0.0327268079	0.0389700355	0.0521482660	0.0407293873	0.0340742206	0.0426755959	
8	0.0197278356	0.0641299441	0.0624640460	0.0600844312	0.0468268516	0.0397426124	0.0453119367	0.0359920640	0.0428582007	0.0573512681	0.0447930981	0.0358093100	0.0448486759	
9	0.0118473747	0.0693378810	0.0698465964	0.0736225344	0.0534377006	0.0453533365	0.0517089150	0.0410733035	0.0489087688	0.0654479137	0.0511168252	0.0526288382	0.0659139597	
10	0.0053251777	0.0671750891	0.0689477469	0.0658344858	0.0532712252	0.0452120443	0.0515478328	0.0409453420	0.0487564067	0.0652440247	0.0509575859	0.0624520143	0.0782168041	
11	0.0025378610	0.0566114004	0.0609060403	0.0580828299	0.0407951888	0.0536203440	0.0411075833	0.0313560350	0.0391491717	0.0523881239	0.0302729398	0.0478258601	0.0598985955	
12	0.0013011470	0.0571436271	0.0537032598	0.0469466482	0.0331924560	0.0489936472	0.0382933197	0.0255124310	0.0294483131	0.0394065607	0.0466101866	0.0389128550	0.0487354179	
13	0.0006124019	0.0449485732	0.0426294343	0.0395589199	0.0277347637	0.0456089741	0.0333751020	0.0545980574	0.0316398801	0.0194774783	0.0291673253	0.0325145854	0.0462990441	
14	0.0002476898	0.0482978852	0.0413830297	0.0351553970	0.0364294706	0.0377746681	0.0430863640	0.0632656498	0.0364439725	0.0194691525	0.0347804437	0.0427077419	0.0462072388	
15	0.0001527705	0.0378419893	0.0381951103	0.0336632943	0.0283511969	0.0332950401	0.0210164622	0.0395649332	0.0357887614	0.0311848083	0.0335202065	0.0332372597	0.0300444032	
16	0.0000668536	0.0309095686	0.0270014382	0.0226726836	0.0235884296	0.0279132162	0.0253671498	0.0341566540	0.0259987277	0.0230196849	0.0233151075	0.0276536739	0.0230524492	
17	0.0000299603	0.0269616595	0.0210930010	0.0174685203	0.0175637044	0.0244970846	0.0206833627	0.0146346390	0.0197956396	0.0052258132	0.0206748599	0.0205906442	0.0138452217	
18	0.0000127409	0.0195509085	0.0155201342	0.0132469612	0.0201192241	0.0250480695	0.0266888558	0.0401958334	0.0193740288	0.0037212159	0.0155464816	0.0235865809	0.0100068460	
19	0.0000055369	0.0150640356	0.0126558006	0.0105902904	0.0225790392	0.0366610768	0.0301447753	0.0342277190	0.0227335396	0.0175775477	0.0203628520	0.0264703224	0.0098603738	
20	0.0000022027	0.0128205992	0.0134947267	0.0114273237	0.0226407923	0.0281971934	0.0173882093	0.0270081845	0.0289395633	0.0183874556	0.0265944575	0.0265427135	0.0095755112	
21	0.0000010015	0.0095329206	0.0116970278	0.0094985079	0.0212965445	0.0224413685	0.0209032932	0.0367430589	0.0255089927	0.0121624816	0.0238465850	0.0249667984	0.0083402541	
22	0.0000005320	0.0071818914	0.0079458293	0.0068054444	0.0221368577	0.0207614938	0.0211741003	0.0294241579	0.0211707159	0.0029207200	0.0232916866	0.0259516972	0.0021970287	
23	0.0000002372	0.0061105010	0.0058604986	0.0054589126	0.0187753208	0.0176845935	0.0186862800	0.0367365508	0.0255742899	0.0006595597	0.0173635700	0.0220110680	0.0022815392	
24	0.0000001072	0.0048237252	0.0044463087	0.0046946648	0.0165801584	0.0153441343	0.0162223474	0.0195371739	0.0181341022	0.0013228019	0.0186391363	0.0194375881	0.0028947085	
25	0.0000000515	0.0034897900	0.0033916587	0.0031661693	0.0130464803	0.0119613578	0.0125269842	0.0202862884	0.0101534224	0.0013255722	0.0189070434	0.0152949162	0.0014963357	
26	0.0000000201	0.0015562577	0.0017737296	0.0011281753	0.0052066606	0.0114707358	0.0046278161	0.0058785937	0.0158244798	0.0000000000	0.0123859355	0.0061039775	0.0003051544	
27	0.0000000084	0.0011722461	0.0013662512	0.0009462115	0.0044375500	0.0062552616	0.0034269422	0.0066192300	0.0082431519	0.0005853113	0.0073123264	0.0052023202	0.0002365920	
28	0.0000000046	0.0012328795	0.0008868648	0.0009098188	0.0038534093	0.0027153367	0.0040227141	0.0058648852	0.0078447522	0.0004224309	0.0040199156	0.0045175071	0.0007539156	
29	0.0000000027	0.0011385608	0.0003235858	0.0003275348	0.0050202650	0.0073813428	0.0039557847	0.0014702211	0.0082910352	0.0000000000	0.0005297244	0.0058854602	0.0002483418	
30	0.0000000060	0.0114731899	0.0089405561	0.0080791906	0.0041841999	0.0025473919	0.0046291194	0.0021486392	0.0093642209	0.0005969550	0.0069720059	0.0048818593	0.0002641374	

Source: Quality assured vehicle registration data for Allen County for source types 21, 32, and 32. MOVES2010a default distributions for all other source types.

## Appendix C

### Allen County Vehicle Populations:

Vehicle Populations	Source Types												
	11	21	31	32	41	42	43	51	52	53	54	61	62
Annual Populations													
2008	6,528	155,784	89,124	27,287	126	66	856	34	2,317	298	536	3,114	3,725
2009	6,580	157,042	89,844	27,507	127	67	864	34	2,339	301	541	3,143	3,761
2010	6,633	158,310	90,570	27,729	128	67	872	35	2,361	303	546	3,173	3,796
2011	6,687	159,589	91,301	27,953	130	68	881	35	2,384	306	551	3,203	3,832
2012	6,741	160,878	92,038	28,179	131	69	889	35	2,406	309	556	3,233	3,868
2013	6,795	162,177	92,782	28,407	132	69	897	35	2,429	312	562	3,264	3,904
2014	6,850	163,487	93,531	28,636	133	70	906	36	2,452	315	567	3,294	3,941
2015	6,906	164,807	94,286	28,867	135	70	914	36	2,475	318	572	3,325	3,978
2016	6,961	166,138	95,048	29,100	136	71	923	36	2,498	321	578	3,357	4,016
2017	7,018	167,480	95,816	29,335	137	72	932	37	2,522	324	583	3,389	4,054
2018	7,074	168,832	96,589	29,572	139	72	940	37	2,545	327	589	3,420	4,092
2019	7,131	170,196	97,369	29,811	140	73	949	38	2,569	330	594	3,453	4,131
2020	7,189	171,570	98,156	30,052	141	74	958	38	2,594	333	600	3,485	4,170
2021	7,247	172,956	98,948	30,295	142	75	967	38	2,618	336	605	3,518	4,209
2022	7,306	174,353	99,748	30,539	144	75	976	39	2,643	340	611	3,551	4,249
2023	7,365	175,761	100,553	30,786	145	76	985	39	2,668	343	617	3,585	4,289
2024	7,424	177,180	101,365	31,034	147	77	995	39	2,693	346	623	3,619	4,329
2025	7,484	178,611	102,184	31,285	148	77	1,004	40	2,718	349	629	3,653	4,370
2026	7,544	180,054	103,009	31,538	149	78	1,014	40	2,744	353	635	3,687	4,411
2027	7,605	181,508	103,841	31,792	151	79	1,023	40	2,770	356	641	3,722	4,453
2028	7,667	182,974	104,680	32,049	152	80	1,033	41	2,796	359	647	3,757	4,495
2029	7,729	184,451	105,525	32,308	154	80	1,043	41	2,822	363	653	3,792	4,537
2030	7,791	185,941	106,377	32,569	155	81	1,052	42	2,849	366	659	3,828	4,580
2031	7,854	187,443	107,236	32,832	156	82	1,062	42	2,876	370	665	3,864	4,623
2032	7,918	188,956	108,102	33,097	158	83	1,072	42	2,903	373	671	3,901	4,667
2033	7,981	190,482	108,975	33,364	159	83	1,082	43	2,930	377	678	3,938	4,711
2034	8,046	192,021	109,855	33,634	161	84	1,093	43	2,958	380	684	3,975	4,755
2035	8,111	193,571	110,743	33,906	162	85	1,103	44	2,986	384	690	4,012	4,800
2036	8,176	195,135	111,637	34,179	164	86	1,113	44	3,014	387	697	4,050	4,845
2037	8,242	196,711	112,539	34,455	166	87	1,124	44	3,042	391	704	4,088	4,891
2038	8,309	198,299	113,447	34,734	167	87	1,134	45	3,071	395	710	4,127	4,937
2039	8,376	199,901	114,364	35,014	169	88	1,145	45	3,100	398	717	4,166	4,984
2040	8,444	201,515	115,287	35,297	170	89	1,156	46	3,129	402	724	4,205	5,030

Source: Quality assured vehicle registration data for Allen County for source types 21, 32, and 32, MOVES2010a default mileage accumulation rates for all other source types. Population growth factors are taken from local socioeconomic data forecasts.

## Appendix D

### *Allen County Meteorological Data:*

monthID	zoneID	HourID	temperature	relHumidity
7	180030	1	67.2	87.4
7	180030	2	66.0	91.3
7	180030	3	65.0	94.6
7	180030	4	64.2	97.0
7	180030	5	63.7	98.9
7	180030	6	63.0	100.0
7	180030	7	62.5	100.0
7	180030	8	63.0	100.0
7	180030	9	65.7	92.2
7	180030	10	70.0	79.3
7	180030	11	74.5	68.2
7	180030	12	78.3	60.1
7	180030	13	81.7	53.9
7	180030	14	83.5	50.8
7	180030	15	84.1	49.7
7	180030	16	84.3	49.5
7	180030	17	83.8	50.2
7	180030	18	82.6	52.3
7	180030	19	80.4	56.1
7	180030	20	77.6	61.6
7	180030	21	74.8	67.6
7	180030	22	72.3	73.4
7	180030	23	70.6	77.9
7	180030	24	68.9	82.6

Source: Mobile 6.2 reported meteorological data from Appendix C of the *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Basic Nonattainment Area, Allen County, Indiana* prepared by IDEM on May 30, 2006 converted using EPA data converter.

## Appendix E

*Indiana Default VMT Distributions by Vehicle Type and Road Type:*

Road Type	Motorcycle	Passenger Car	Light Duty Truck	Bus	Single Unit Truck	Combination Truck
2	0.007033832	0.506408086	0.163786651	0.004174166	0.007773053	0.310824213
3	0.001733929	0.659751199	0.225767175	0.000793168	0.010963315	0.100991214
4	0.003973041	0.569953374	0.254198647	0.002831718	0.009082816	0.159960404
5	0.002785022	0.702754695	0.245240087	0.001402085	0.009764356	0.038053756

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

# Appendix F

Indiana Default Hourly Distribution Factors for Road Type 2 – Rural Restricted Access:

	Source Types													
Hour	11	21	31	32	41	42	43	51	52	53	54	61	62	
1	0.0125903247	0.0101219844	0.0084967341	0.0084967341	0.0254913340	0.0254913340	0.0254913340	0.0126607789	0.0126607789	0.0126607789	0.0126607789	0.0197906895	0.0197906895	
2	0.0104070951	0.0069241973	0.0066421955	0.0066421955	0.0269500431	0.0269500431	0.0269500431	0.0114617645	0.0114617645	0.0114617645	0.0114617645	0.0212124099	0.0212124099	
3	0.0098043179	0.0056567534	0.0061275627	0.0061275627	0.0231103443	0.0231103443	0.0231103443	0.0107741941	0.0107741941	0.0107741941	0.0107741941	0.0201622890	0.0201622890	
4	0.0140329469	0.0069658232	0.0084286563	0.0084286563	0.0234460042	0.0234460042	0.0234460042	0.0128724692	0.0128724692	0.0128724692	0.0128724692	0.0213065902	0.0213065902	
5	0.0165212405	0.0100941552	0.0134026652	0.0134026652	0.0244090660	0.0244090660	0.0244090660	0.0174195788	0.0174195788	0.0174195788	0.0174195788	0.0250478552	0.0250478552	
6	0.0312047458	0.0241732202	0.0316551315	0.0316551315	0.0322923692	0.0322923692	0.0322923692	0.0261005783	0.0261005783	0.0261005783	0.0261005783	0.0304976568	0.0304976568	
7	0.0399082603	0.0390974746	0.0481531313	0.0481531313	0.0302344914	0.0302344914	0.0302344914	0.0420450985	0.0420450985	0.0420450985	0.0420450985	0.0339947725	0.0339947725	
8	0.0482864956	0.0528758381	0.0535145983	0.0535145983	0.0386071681	0.0386071681	0.0386071681	0.0556119122	0.0556119122	0.0556119122	0.0556119122	0.0383435322	0.0383435322	
9	0.0472316355	0.0493101459	0.0541442978	0.0541442978	0.0454144773	0.0454144773	0.0454144773	0.0647383083	0.0647383083	0.0647383083	0.0647383083	0.0447350945	0.0447350945	
10	0.0521292001	0.0488627065	0.0570682751	0.0570682751	0.0533197396	0.0533197396	0.0533197396	0.0711110358	0.0711110358	0.0711110358	0.0711110358	0.0517738130	0.0517738130	
11	0.0559204481	0.0513700269	0.0575854739	0.0575854739	0.0576707709	0.0576707709	0.0576707709	0.0730230234	0.0730230234	0.0730230234	0.0730230234	0.0557712484	0.0557712484	
12	0.0572822100	0.0533048469	0.0582753930	0.0582753930	0.0549541212	0.0549541212	0.0549541212	0.0731872952	0.0731872952	0.0731872952	0.0731872952	0.0571435296	0.0571435296	
13	0.0592008057	0.0551586141	0.0599414146	0.0599414146	0.0541541840	0.0541541840	0.0541541840	0.0739324454	0.0739324454	0.0739324454	0.0739324454	0.0567014536	0.0567014536	
14	0.0615145144	0.0595500442	0.0635019874	0.0635019874	0.0570747392	0.0570747392	0.0570747392	0.0746488056	0.0746488056	0.0746488056	0.0746488056	0.0567500887	0.0567500887	
15	0.0647783324	0.0662712693	0.0683897966	0.0683897966	0.0551925339	0.0551925339	0.0551925339	0.0704234655	0.0704234655	0.0704234655	0.0704234655	0.0578234055	0.0578234055	
16	0.0713500739	0.0764876319	0.0772110428	0.0772110428	0.0551956709	0.0551956709	0.0551956709	0.0628601912	0.0628601912	0.0628601912	0.0628601912	0.0577540296	0.0577540296	
17	0.0754978425	0.0847160034	0.0792545794	0.0792545794	0.0557979766	0.0557979766	0.0557979766	0.0534712990	0.0534712990	0.0534712990	0.0534712990	0.0562910814	0.0562910814	
18	0.0693763461	0.0821220539	0.0693254052	0.0693254052	0.0501011685	0.0501011685	0.0501011685	0.0436895095	0.0436895095	0.0436895095	0.0436895095	0.0527021980	0.0527021980	
19	0.0542187052	0.0620082513	0.0521045300	0.0521045300	0.0459665909	0.0459665909	0.0459665909	0.0363413126	0.0363413126	0.0363413126	0.0363413126	0.0502215100	0.0502215100	
20	0.0432143461	0.0459015588	0.0390794599	0.0390794599	0.0462959768	0.0462959768	0.0462959768	0.0312048570	0.0312048570	0.0312048570	0.0312048570	0.0467116534	0.0467116534	
21	0.0358137860	0.0372595462	0.0311015284	0.0311015284	0.0418602463	0.0418602463	0.0418602463	0.0261242877	0.0261242877	0.0261242877	0.0261242877	0.0421311043	0.0421311043	
22	0.0294294934	0.0312744978	0.0249803003	0.0249803003	0.0366496745	0.0366496745	0.0366496745	0.0215822587	0.0215822587	0.0215822587	0.0215822587	0.0381387483	0.0381387483	
23	0.0223450238	0.0235734666	0.0182964081	0.0182964081	0.0347517842	0.0347517842	0.0347517842	0.0189759266	0.0189759266	0.0189759266	0.0189759266	0.0342326572	0.0342326572	
24	0.0179418099	0.0169198902	0.0133194323	0.0133194323	0.0310595247	0.0310595247	0.0310595247	0.0157396039	0.0157396039	0.0157396039	0.0157396039	0.0307625891	0.0307625891	

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.



Indiana Default Hourly Distribution Factors for Road Type 3 – Rural Unrestricted Access:

	Source Types													
Hour	11	21	31	32	41	42	43	51	52	53	54	61	62	
1	0.0040299464	0.0073183989	0.0054636028	0.0054636028	0.0036998387	0.0036998387	0.0036998387	0.0043986387	0.0043986387	0.0043986387	0.0043986387	0.0164160879	0.0164160879	
2	0.0040299464	0.0041131835	0.0034619242	0.0034619242	0.0045536477	0.0045536477	0.0045536477	0.0041872686	0.0041872686	0.0041872686	0.0041872686	0.0167510731	0.0167510731	
3	0.0041817017	0.0032797517	0.0030691885	0.0030691885	0.0046485153	0.0046485153	0.0046485153	0.0073497934	0.0073497934	0.0073497934	0.0073497934	0.0165479051	0.0165479051	
4	0.0053114356	0.0057247729	0.0048082254	0.0048082254	0.0039844417	0.0039844417	0.0039844417	0.0084039684	0.0084039684	0.0084039684	0.0084039684	0.0195836328	0.0195836328	
5	0.0140963815	0.0151258840	0.0143177758	0.0143177758	0.0082534864	0.0082534864	0.0082534864	0.0153176438	0.0153176438	0.0153176438	0.0153176438	0.0258467673	0.0258467673	
6	0.0292719118	0.0316782840	0.0354335195	0.0354335195	0.0293141068	0.0293141068	0.0293141068	0.0299744215	0.0299744215	0.0299744215	0.0299744215	0.0344245647	0.0344245647	
7	0.0397598894	0.0468485516	0.0516314034	0.0516314034	0.0496157860	0.0496157860	0.0496157860	0.0557776279	0.0557776279	0.0557776279	0.0557776279	0.0440469233	0.0440469233	
8	0.0448183995	0.0633910409	0.0636260878	0.0636260878	0.0768428043	0.0768428043	0.0768428043	0.0778885464	0.0778885464	0.0778885464	0.0778885464	0.0512793380	0.0512793380	
9	0.0370114322	0.0460357746	0.0558633273	0.0558633273	0.1049236315	0.1049236315	0.1049236315	0.0853025536	0.0853025536	0.0853025536	0.0853025536	0.0568238265	0.0568238265	
10	0.0416989849	0.0427840868	0.0547852386	0.0547852386	0.1065363817	0.1065363817	0.1065363817	0.0879727734	0.0879727734	0.0879727734	0.0879727734	0.0599756501	0.0599756501	
11	0.0509391967	0.0444183487	0.0568454275	0.0568454275	0.1186794422	0.1186794422	0.1186794422	0.0886336394	0.0886336394	0.0886336394	0.0886336394	0.0633505956	0.0633505956	
12	0.0563855259	0.0512966366	0.0618918527	0.0618918527	0.1154539418	0.1154539418	0.1154539418	0.0859045570	0.0859045570	0.0859045570	0.0859045570	0.0635864154	0.0635864154	
13	0.0638721209	0.0537246907	0.0610818211	0.0610818211	0.0999905132	0.0999905132	0.0999905132	0.0858537212	0.0858537212	0.0858537212	0.0858537212	0.0644099711	0.0644099711	
14	0.0708697265	0.0545001954	0.0632013074	0.0632013074	0.0864244379	0.0864244379	0.0864244379	0.0852196109	0.0852196109	0.0852196109	0.0852196109	0.0637040231	0.0637040231	
15	0.0774626513	0.0656899700	0.0681384267	0.0681384267	0.0592922873	0.0592922873	0.0592922873	0.0774551039	0.0774551039	0.0774551039	0.0774551039	0.0609657913	0.0609657913	
16	0.0849155229	0.0775959037	0.0765115831	0.0765115831	0.0295038421	0.0295038421	0.0295038421	0.0663381066	0.0663381066	0.0663381066	0.0663381066	0.0570058311	0.0570058311	
17	0.0916096179	0.0871890696	0.0796014405	0.0796014405	0.0317806660	0.0317806660	0.0317806660	0.0433522764	0.0433522764	0.0433522764	0.0433522764	0.0517440242	0.0517440242	
18	0.0855899909	0.0856725476	0.0737419189	0.0737419189	0.0184043260	0.0184043260	0.0184043260	0.0290727541	0.0290727541	0.0290727541	0.0290727541	0.0467760851	0.0467760851	
19	0.0685258502	0.0656330958	0.0545272751	0.0545272751	0.0120481928	0.0120481928	0.0120481928	0.0187744815	0.0187744815	0.0187744815	0.0187744815	0.0413186686	0.0413186686	
20	0.0503658989	0.0457301992	0.0390975413	0.0390975413	0.0118584575	0.0118584575	0.0118584575	0.0129711680	0.0129711680	0.0129711680	0.0129711680	0.0364127078	0.0364127078	
21	0.0353421239	0.0400621944	0.0294058171	0.0294058171	0.0096765013	0.0096765013	0.0096765013	0.0106166656	0.0106166656	0.0106166656	0.0106166656	0.0318882915	0.0318882915	
22	0.0217853168	0.0289018238	0.0218457686	0.0218457686	0.0061663979	0.0061663979	0.0061663979	0.0079972816	0.0079972816	0.0079972816	0.0079972816	0.0290264055	0.0290264055	
23	0.0119380838	0.0205028665	0.0136731866	0.0136731866	0.0048382506	0.0048382506	0.0048382506	0.0061564888	0.0061564888	0.0061564888	0.0061564888	0.0255574344	0.0255574344	
24	0.0061882440	0.0127827290	0.0079763402	0.0079763402	0.0035101034	0.0035101034	0.0035101034	0.0050809093	0.0050809093	0.0050809093	0.0050809093	0.0225579868	0.0225579868	

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Indiana Default Hourly Distribution Factors for Road Type 4 –Urban Restricted Access:

	Source Types													
Hour	11	21	31	32	41	42	43	51	52	53	54	61	62	
1	0.0114838630	0.0104500369	0.0090397680	0.0090397680	0.0186488577	0.0186488577	0.0186488577	0.0090968023	0.0090968023	0.0090968023	0.0090968023	0.0194173119	0.0194173119	
2	0.0071800855	0.0062500477	0.0056304309	0.0056304309	0.0163411464	0.0163411464	0.0163411464	0.0080102618	0.0080102618	0.0080102618	0.0080102618	0.0198708197	0.0198708197	
3	0.0063691205	0.0049689741	0.0046493622	0.0046493622	0.0157775876	0.0157775876	0.0157775876	0.0078361983	0.0078361983	0.0078361983	0.0078361983	0.0186489893	0.0186489893	
4	0.0073777516	0.0058427101	0.0058801326	0.0058801326	0.0161766037	0.0161766037	0.0161766037	0.0086827231	0.0086827231	0.0086827231	0.0086827231	0.0198231326	0.0198231326	
5	0.0108139353	0.0098545059	0.0108999000	0.0108999000	0.0221330492	0.0221330492	0.0221330492	0.0117453229	0.0117453229	0.0117453229	0.0117453229	0.0232515449	0.0232515449	
6	0.0235457656	0.0231603609	0.0263517526	0.0263517526	0.0299755654	0.0299755654	0.0299755654	0.0204013312	0.0204013312	0.0204013312	0.0204013312	0.0294638153	0.0294638153	
7	0.0461747881	0.0495085217	0.0542414568	0.0542414568	0.0393812372	0.0393812372	0.0393812372	0.0435263184	0.0435263184	0.0435263184	0.0435263184	0.0375553768	0.0375553768	
8	0.0567226756	0.0788353145	0.0674512195	0.0674512195	0.0503870867	0.0503870867	0.0503870867	0.0659533819	0.0659533819	0.0659533819	0.0659533819	0.0446175773	0.0446175773	
9	0.0493171440	0.0638279223	0.0614111771	0.0614111771	0.0589556475	0.0589556475	0.0589556475	0.0756333178	0.0756333178	0.0756333178	0.0756333178	0.0515843704	0.0515843704	
10	0.0406144957	0.0466481855	0.0536303211	0.0536303211	0.0581555587	0.0581555587	0.0581555587	0.0790728466	0.0790728466	0.0790728466	0.0790728466	0.0553194565	0.0553194565	
11	0.0415130748	0.0428102606	0.0512594850	0.0512594850	0.0616027281	0.0616027281	0.0616027281	0.0824723032	0.0824723032	0.0824723032	0.0824723032	0.0583081277	0.0583081277	
12	0.0465166969	0.0452333632	0.0529793024	0.0529793024	0.0644246353	0.0644246353	0.0644246353	0.0820640679	0.0820640679	0.0820640679	0.0820640679	0.0589378233	0.0589378233	
13	0.0517959830	0.0478487216	0.0547982766	0.0547982766	0.0637644078	0.0637644078	0.0637644078	0.0808088903	0.0808088903	0.0808088903	0.0808088903	0.0575925555	0.0575925555	
14	0.0566713893	0.0502151226	0.0576880799	0.0576880799	0.0625591325	0.0625591325	0.0625591325	0.0811795580	0.0811795580	0.0811795580	0.0811795580	0.0571667797	0.0571667797	
15	0.0671882913	0.0580384620	0.0656779676	0.0656779676	0.0619482678	0.0619482678	0.0619482678	0.0795090490	0.0795090490	0.0795090490	0.0795090490	0.0573429674	0.0573429674	
16	0.0810035452	0.0715596945	0.0786905659	0.0786905659	0.0609466141	0.0609466141	0.0609466141	0.0727723312	0.0727723312	0.0727723312	0.0727723312	0.0567213465	0.0567213465	
17	0.0863864724	0.0838541123	0.0821371575	0.0821371575	0.0577256909	0.0577256909	0.0577256909	0.0563364761	0.0563364761	0.0563364761	0.0563364761	0.0551911545	0.0551911545	
18	0.0643264717	0.0874512168	0.0756929494	0.0756929494	0.0510164625	0.0510164625	0.0510164625	0.0371719560	0.0371719560	0.0371719560	0.0371719560	0.0531125437	0.0531125437	
19	0.0645951265	0.0604364374	0.0543673700	0.0543673700	0.0450990958	0.0450990958	0.0450990958	0.0249336618	0.0249336618	0.0249336618	0.0249336618	0.0487199307	0.0487199307	
20	0.0469536991	0.0424749554	0.0373951308	0.0373951308	0.0384927066	0.0384927066	0.0384927066	0.0188134711	0.0188134711	0.0188134711	0.0188134711	0.0432101938	0.0432101938	
21	0.0373781148	0.0353280630	0.0293181427	0.0293181427	0.0322318571	0.0322318571	0.0322318571	0.0162446774	0.0162446774	0.0162446774	0.0162446774	0.0390319248	0.0390319248	
22	0.0316564842	0.0313403787	0.0249971308	0.0249971308	0.0282046747	0.0282046747	0.0282046747	0.0142456600	0.0142456600	0.0142456600	0.0142456600	0.0355118446	0.0355118446	
23	0.0245992722	0.0251562568	0.0203505544	0.0203505544	0.0242700475	0.0242700475	0.0242700475	0.0124474209	0.0124474209	0.0124474209	0.0124474209	0.0317711657	0.0317711657	
24	0.0198157539	0.0189063955	0.0154623663	0.0154623663	0.0217813392	0.0217813392	0.0217813392	0.0110419727	0.0110419727	0.0110419727	0.0110419727	0.0278292477	0.0278292477	

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Indiana Default Hourly Distribution Factors for Road Type 5 –Urban Unrestricted Access:

	Source Types													
Hour	11	21	31	32	41	42	43	51	52	53	54	61	62	
1	0.0092279794	0.0085268711	0.0060669694	0.0060669694	0.0126828270	0.0126828270	0.0126828270	0.0037158531	0.0037158531	0.0037158531	0.0037158531	0.0106396358	0.0106396358	
2	0.0055316691	0.0048527626	0.0037675180	0.0037675180	0.0099485186	0.0099485186	0.0099485186	0.0038117041	0.0038117041	0.0038117041	0.0038117041	0.0124309233	0.0124309233	
3	0.0047273286	0.0037895145	0.0033129405	0.0033129405	0.0069482800	0.0069482800	0.0069482800	0.0044165887	0.0044165887	0.0044165887	0.0044165887	0.0121505035	0.0121505035	
4	0.0047017359	0.0044201159	0.0042394230	0.0042394230	0.0113599945	0.0113599945	0.0113599945	0.0056282193	0.0056282193	0.0056282193	0.0056282193	0.0144699998	0.0144699998	
5	0.0061859928	0.0079416389	0.0087215410	0.0087215410	0.0153898606	0.0153898606	0.0153898606	0.0086545038	0.0086545038	0.0086545038	0.0086545038	0.0210508569	0.0210508569	
6	0.0225361588	0.0203863353	0.0238668712	0.0238668712	0.0256929528	0.0256929528	0.0256929528	0.0191822890	0.0191822890	0.0191822890	0.0191822890	0.0299165403	0.0299165403	
7	0.0435184779	0.0478282898	0.0541952158	0.0541952158	0.0448331117	0.0448331117	0.0448331117	0.0418068371	0.0418068371	0.0418068371	0.0418068371	0.0436775030	0.0436775030	
8	0.0602121997	0.0721456866	0.0675347974	0.0675347974	0.0691895946	0.0691895946	0.0691895946	0.0731482386	0.0731482386	0.0731482386	0.0731482386	0.0588646976	0.0588646976	
9	0.0556311148	0.0567013667	0.0643660182	0.0643660182	0.0747059425	0.0747059425	0.0747059425	0.0880926125	0.0880926125	0.0880926125	0.0880926125	0.0640862836	0.0640862836	
10	0.0485821670	0.0466493163	0.0603283916	0.0603283916	0.0803995772	0.0803995772	0.0803995772	0.0921313810	0.0921313810	0.0921313810	0.0921313810	0.0680944168	0.0680944168	
11	0.0495985610	0.0468148434	0.0590657789	0.0590657789	0.0774061573	0.0774061573	0.0774061573	0.0943973720	0.0943973720	0.0943973720	0.0943973720	0.0703404942	0.0703404942	
12	0.0573056055	0.0516032787	0.0615645883	0.0615645883	0.0753332651	0.0753332651	0.0753332651	0.0911430924	0.0911430924	0.0911430924	0.0911430924	0.0698309800	0.0698309800	
13	0.0607752380	0.0555323143	0.0626732860	0.0626732860	0.0739763390	0.0739763390	0.0739763390	0.0895629476	0.0895629476	0.0895629476	0.0895629476	0.0685413889	0.0685413889	
14	0.0609214817	0.0562211160	0.0629887267	0.0629887267	0.0779993863	0.0779993863	0.0779993863	0.0912650000	0.0912650000	0.0912650000	0.0912650000	0.0671175363	0.0671175363	
15	0.0649907135	0.0607579027	0.0667909366	0.0667909366	0.0761037810	0.0761037810	0.0761037810	0.0905726397	0.0905726397	0.0905726397	0.0905726397	0.0651260461	0.0651260461	
16	0.0724418316	0.0715477952	0.0751790074	0.0751790074	0.0728035185	0.0728035185	0.0728035185	0.0775387708	0.0775387708	0.0775387708	0.0775387708	0.0605241028	0.0605241028	
17	0.0773519648	0.0803647101	0.0757034489	0.0757034489	0.0526405510	0.0526405510	0.0526405510	0.0464337395	0.0464337395	0.0464337395	0.0464337395	0.0557685235	0.0557685235	
18	0.0770777578	0.0832250581	0.0684911688	0.0684911688	0.0347686748	0.0347686748	0.0347686748	0.0260342365	0.0260342365	0.0260342365	0.0260342365	0.0506461891	0.0506461891	
19	0.0635977420	0.0637849687	0.0526386278	0.0526386278	0.0285090860	0.0285090860	0.0285090860	0.0173341336	0.0173341336	0.0173341336	0.0173341336	0.0402747366	0.0402747366	
20	0.0483079600	0.0462284324	0.0372839274	0.0372839274	0.0220585728	0.0220585728	0.0220585728	0.0112536468	0.0112536468	0.0112536468	0.0112536468	0.0310667712	0.0310667712	
21	0.0383158572	0.0386568197	0.0292289942	0.0292289942	0.0174082029	0.0174082029	0.0174082029	0.0076615624	0.0076615624	0.0076615624	0.0076615624	0.0268533367	0.0268533367	
22	0.0305027859	0.0325107827	0.0238169348	0.0238169348	0.0137124544	0.0137124544	0.0137124544	0.0062358957	0.0062358957	0.0062358957	0.0062358957	0.0231915644	0.0231915644	
23	0.0214502991	0.0238017051	0.0170601049	0.0170601049	0.0139442910	0.0139442910	0.0139442910	0.0053276381	0.0053276381	0.0053276381	0.0053276381	0.0193751364	0.0193751364	
24	0.0145073780	0.0159083752	0.0113147831	0.0113147831	0.0121850602	0.0121850602	0.0121850602	0.0046510979	0.0046510979	0.0046510979	0.0046510979	0.0159618330	0.0159618330	

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

## Appendix G

### *Indiana Default Daily Distribution Factors:*

monthID	dayID	
	2	5
1	0.2325411725	0.7674588275
2	0.2380547378	0.7619452622
3	0.2393402049	0.7606597951
4	0.2396052454	0.7603947546
5	0.2484757701	0.7515242299
6	0.2489743665	0.7510256335
7	0.2481153021	0.7518846979
8	0.2527028648	0.7472971352
9	0.2496078420	0.7503921580
10	0.2462808693	0.7537191307
11	0.2439742406	0.7560257594
12	0.2258784720	0.7741215280

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

## Appendix H

### *Indiana Default Monthly Distribution Factors:*

monthID	monthVMTFraction
1	0.0733424010
2	0.0693661929
3	0.0827036024
4	0.0831789580
5	0.0891346903
6	0.0888150873
7	0.0907968617
8	0.0918542094
9	0.0854175366
10	0.0875162272
11	0.0812354405
12	0.0766387926

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

## Appendix I

### *Allen County Ramp Fractions:*

Road Type	Ramp Fraction
2	3%
4	6%

Source: Analysis of VHT from the NIRCC travel demand model.

# Appendix B

## Allen County, Indiana, Maintenance Area Interagency Consultation Group Meeting Minutes/Summary

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## **Interagency Consultation Group (ICG) Conference Call Minutes**

### **For the MOBILE6 to MOVES MVEB Replacement Update Related to the Allen County, Indiana, Maintenance Area under the 1997 8-Hour Ozone Standard**

#### **ICG Conference Call Date and Time**

- March 22, 2013 at 1:00 p.m. Eastern Standard Time

#### **ICG Attendees**

- Shawn Seals (IDEM), Gale Ferris (IDEM), Anthony Maietta (EPA), Greg Katter (INDOT), Jay Mitchell (INDOT), Steve Smith (INDOT), Frank Baukert (INDOT), Larry Heil (FHWA), Joyce Newland (FHWA), Roberto Miguel (CDM Smith), Dan Avery (NIRCC), and Jeff Bradtmiller (NIRCC)

#### **ICG Discussion Topics and Conclusions**

1. Various mobile source margins of safety were discussed for the Ozone MVEB Replacement submittal for Allen County, Indiana.
  - A. After discussion, the consensus of the ICG was that as long as the a 15% mobile source margin of safety for VOC and NO<sub>x</sub> emissions does not result in an exceedance of the all sources margins of safety, it was reasonable and appropriate for inclusion in MVEB replacement submittal.



# Appendix C

## Allen County, Indiana, Maintenance Area under the 1997 8-Hour Ozone Standard Public Participation Documentation

- **Legal Notice of Public Hearing**
  - **IDEM Webmaster Certification of Legal Notice Publication**
  - **Screenshot Verification of Legal Notice Posting on IDEM Website**
- **Summary of Comments and Responses thereto**
  - **No Comments Received**

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## **LEGAL NOTICE OF PUBLIC HEARING**

### **Motor Vehicle Emission Budget Replacement Update to the Maintenance Plan for the 1997 8-Hour Ozone Standard for Allen County, Indiana**

Notice is hereby given under 40 CFR 51.102 that the Indiana Department of Environmental Management (IDEM) is accepting written comment and providing an opportunity for public hearing regarding the Motor Vehicle Emission Budget (MVEB) replacement update to the maintenance plan for the 1997 8-hour ozone standard for Allen County, Indiana. Onroad emissions for the original submittal were calculated using the MOBILE6.2 mobile model and are now being replaced with the United States Environmental Protection Agency's (U.S. EPA's) recently adopted Motor Vehicle Emissions Simulator (MOVES) mobile model. All interested persons are invited and will be given reasonable opportunity to express their views concerning the submittal of the proposed MVEB replacement update to the Allen County, Indiana, maintenance area for the 1997 8-hour ozone standard.

The purpose of this notice is to solicit public comment on Indiana's proposed MVEB replacement update. Allen County, Indiana, was designated as nonattainment for the 1997 8-hour ozone standard and is subject to the requirements of Section 172 of the Clean Air Act (CAA). One of the compliance requirements mandated by Section 175A(b) of the CAA, is the development of a plan demonstrating that maintenance areas will continue to meet the 1997 8-hour ozone standard for the next ten years, which includes MVEBs for onroad sources, beyond the current maintenance period. This submittal of the proposed MVEB replacement update to the *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Basic Nonattainment Area* for the Allen County, Indiana, maintenance area that was originally submitted on May 30, 2006, is being drafted and submitted consistent with U.S. EPA guidance. Upon completion of this public notice process, the MOBILE6.2-based to MOVES-based MVEB replacement update will be submitted to U.S. EPA for approval into the State Implementation Plan.

Copies of the draft documents will be available on or before May 22, 2013, to any person upon request and at the following locations:

- Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, 100 North Senate Avenue, Room N1003, Indianapolis, Indiana.
- Allen County Public Library, Waynedale Branch, 2200 Lower Huntington Road, Fort Wayne, Indiana.

The draft documents will also be available on the following web page:

<http://www.in.gov/idem/airquality/2404.htm>

An electronic version of all MOVES mobile model input and output files will be available at the public hearing, if held, or upon request.

Any person may submit written comments on the MVEB replacement update to the Allen County, Indiana, 1997 8-hour ozone maintenance area on or before June 21, 2013. Written comments should be directed to Mr. Gale Ferris, Mail Code 61-50, Office of Air Quality, Indiana Department of Environmental Management, 100 North Senate Avenue, Indianapolis, Indiana 46204; or fax (317) 233-5967; or email at [gferris@idem.in.gov](mailto:gferris@idem.in.gov). Interested parties may also present oral or written comments at the public hearing, if held. Oral statements will be heard, but for the accuracy of the record, statements should be submitted in writing. Written statements may be submitted to the attendant designated to receive written comments at the public hearing.

A public hearing on the MVEB replacement update to the maintenance plan for the 1997 8-hour ozone standard for Allen County, Indiana will be held if a public hearing request is received by June 4, 2013. A hearing has been scheduled for June 11, 2013. The meeting will convene at 6:00 p.m. (local time) at the Allen County Public Library, Waynedale Branch, 2200 Lower Huntington Road, Fort Wayne, Indiana, 46819. If a request for a public hearing is not received by June 4, 2013, the hearing will be cancelled. Interested parties can check the State of Indiana's online calendar at <http://www.in.gov/activecalendar/EventList.aspx> or contact Mr. Gale Ferris at (317) 234-3653, after June 4, 2013, to see if the hearing has been cancelled or will convene.

A transcript of the hearing and all written submissions provided at the public hearing shall be open to public inspection at IDEM and copies may be made available to any person upon payment of reproduction costs. Any person heard or represented at the hearing or requesting notice shall be given written notice of actions resulting from the hearing.

For additional information contact Mr. Gale Ferris, at the Indiana Department of Environmental Management, Office of Air Quality, Room N1001, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, IN 46204 or call (317) 234-3653 or (800) 451-6027 ext. 4-3653 (in Indiana).

\*\*\*\*\*

*Individuals requiring reasonable accommodations for participation in this hearing, if held, should contact the IDEM Americans with Disabilities Act (ADA) coordinator at:*

Attn: ADA Coordinator  
Indiana Department of Environmental Management – Mail Code 50-10  
100 North Senate Avenue  
Indianapolis, IN 46204-2251

*Or call (317) 233-1785 (voice) or (317) 232-6565 (TDD). Please provide a minimum of 72 hours notification.*



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

May 23, 2013

### CERTIFICATE OF PUBLICATION

This is to certify that the Indiana Department of Environmental Management (IDEM) Notice of the opportunity for a Public Hearing regarding the following:

- Motor Vehicle Emission Budget (MVEB) Replacement Update to the Maintenance Plan for the 1997 8-Hour Ozone Standard for Allen County, Indiana

was published on IDEM's web site on May 22, 2013. It is expected that it will remain posted on the site until at least June 21, 2013.

The notice in full was available online at the following web address, under "Northeastern".

<http://www.in.gov/idem/5474.htm>

Web publication of the notice was at the request of Scott Deloney, Branch Chief, Programs Branch, Office of Air Quality, IDEM.

By:

Mike Finklestein  
IDEM Webmaster

Attachments:

Copy of web page as published.

# SCREENSHOT VERIFICATION OF LEGAL NOTICE POSTING ON IDEM WEBSITE

IDEM: Public Notices: Northeast Indiana - Windows Internet Explorer

http://www.in.gov/idem/6397.htm

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 Air Toxics Program  
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 Hoosier Riverwatch  
 Partners for Pollution Prevention  
 Pollution Prevention  
 Recycle Indiana  
 Watersheds and Nonpoint Source Water Pollution  
 Certifications & Training  
 Compliance  
 Monitoring  
 Permitting  
 Reporting  
 Video and Audio Library  
 Sign up to receive e-mail and wireless updates from IDEM  
 Find Out Where to Recycle

Agency	Project	Notice
Decatur (city) WWTP	Adams	NPDES Draft Modification (PDF) 04/19/2013 - Yes 05/20/2013
Former Fort Wayne Foundry	Allen	30 Day Public Notice of Remediation Work Plan (PDF) 05/29/2013 - Yes 05/29/2013
Motor Vehicle Emission Budget Replacement Update to the Maintenance Plan for the 1997 8-Hour Ozone Standard for Allen County, Indiana	Allen	Legal Notice and Opportunity for Public Hearing (PDF) 05/22/2013 - Yes 05/21/2013
Fort Wayne Utilities (city) - Honeysuckle Site	Allen	NPDES Final Renewal (PDF) 05/14/2013 - Yes 05/03/2013
Huntstown Utility	Allen	Water Main / Well / Pump / Chemical & Water Treatment for Drinking Water (PDF) 04/23/2013 - Yes 05/23/2013
Woodburn Water Works	Allen	Water Main Construction for Drinking Water (PDF) 04/05/2013 - Yes 05/05/2013
KS Kolbenschmidt US, Inc.	Allen	Significant Modification to a Part 70 Operating Permit (PDF) 04/05/2013 - Yes 05/05/2013
Dunkirk (city) WWTP	Bladford and Jay	NPDES Final Renewal (PDF) 05/14/2013 - Yes 05/03/2013
Stefford Gravel, Inc. - Washier Pit	DeKalb	NPDES 15-12 "Renewal" General Permit (PDF) 05/15/2013 - No 05/03/2013
Waterloo Water Works	DeKalb	Wellhead Protection Plan Phase 2 (PDF) 04/15/2013 - Yes 05/06/2013

Project Manager: Bill Stanner  
 Address on Notice  
 Project Manager: Damon Ridley  
 Address on Notice  
 Address on Notice  
 Project Manager: Nahir Kesterson  
 Address on Notice  
 Address on Notice  
 Address on Notice  
 Project Manager: Bill Stanner  
 Address on Notice  
 Project Manager: Sheri Jordan  
 Project Manager: Jim Sullivan  
 Applicant Name: Mr. Jim Rodman  
 Applicant Company: City of

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