

CMAP



# GO TO 2040

## UPDATE APPENDIX

# Transportation Conformity Analysis

DRAFT

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# Table of Contents

<b>1.0</b>	<b>GO TO 2040 PLAN UPDATE AND FFY 14-19 TIP CONFORMITY .....</b>	<b>2</b>
1.1	<i>Conformity Finding .....</i>	2
1.2	<i>History of attainment status .....</i>	2
1.3	<i>Overview of the Conformity Process .....</i>	5
1.4	<i>Summary of 8-Hour Ozone Conformity Process.....</i>	5
1.5	<i>Summary of PM<sub>2.5</sub> Conformity Process .....</i>	6
<b>2.0</b>	<b>FEDERAL ACCEPTANCE OF THE PLAN AND TIP .....</b>	<b>7</b>
<b>3.0</b>	<b>INTERAGENCY CONSULTATION .....</b>	<b>8</b>
3.1	<i>Consultation Process .....</i>	8
3.2	<i>Summary of Formal Consultation Meetings .....</i>	9
<b>4.0</b>	<b>PUBLIC PARTICIPATION .....</b>	<b>10</b>
<b>5.0</b>	<b>PROCEDURES FOR DETERMINING REGIONAL TRANSPORTATION DEMAND</b>	<b>11</b>
5.1	<i>Travel Demand for Ozone Conformity .....</i>	13
5.2	<i>Travel Demand for PM<sub>2.5</sub> Conformity .....</i>	14
<b>6.0</b>	<b>LATEST PLANNING ASSUMPTIONS .....</b>	<b>15</b>
6.1	<i>Socioeconomic Forecasts .....</i>	15
6.2	<i>Transit Operating Policies.....</i>	15
6.3	<i>Transit Fares and Highway Costs in the Conformity Analysis .....</i>	15
6.4	<i>Transportation Control Measures (TCMs) .....</i>	16
<b>7.0</b>	<b>EMISSION BUDGETS AND MOVES MODEL SETTINGS .....</b>	<b>17</b>
7.1	<i>Ozone Conformity.....</i>	17
7.2	<i>PM<sub>2.5</sub> Conformity.....</i>	17
<b>8.0</b>	<b>OFF-NETWORK CALCULATIONS.....</b>	<b>18</b>
<b>9.0</b>	<b>MODELED PROJECTS.....</b>	<b>19</b>
<b>10.0</b>	<b>RESULTS OF THE CONFORMITY ANALYSIS .....</b>	<b>20</b>
10.1	<i>Ozone Conformity Results.....</i>	20
10.2	<i>PM<sub>2.5</sub> Conformity Results.....</i>	20
10.3	<i>Conclusion .....</i>	21

## Exhibits

Exhibit 1: Northeastern Illinois Nonattainment Area for Ozone and PM <sub>2.5</sub> .....	4
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## Tables

Table 1: Daily Average Daily Traffic (ADT) conversion factors.....	13
Table 2: Monthly ADT conversion factors.....	14
Table 3: VOC and NO <sub>x</sub> Emissions in Tons per Summer Day for Ozone Conformity .....	20
Table 4: Direct PM <sub>2.5</sub> and NO <sub>x</sub> Emissions in Tons per Year for PM <sub>2.5</sub> Conformity.....	21

# 1.0 GO TO 2040 PLAN UPDATE AND FFY 14-19 TIP CONFORMITY

## 1.1 Conformity Finding

Chicago Metropolitan Agency for Planning (CMAP) staff finds that the GO TO 2040 Plan Update and the *Federal Fiscal Year 2014-2019 Transportation Improvement Program* (FFY 14-19 TIP) conform to the State Implementation Plan (SIP) for the 8-hour ozone standard and the annual fine particulate matter (PM<sub>2.5</sub>) standard based on the results of the conformity analysis.

This report makes the determination that the region's transportation plan and program satisfy all applicable criteria and procedures in the conformity regulations.

The *Transportation Conformity Analysis for the PM<sub>2.5</sub> and 8-Hour Ozone National Ambient Air Quality Standards* documentation was the subject of a public comment period running from June 13 through August 1, 2014. The CMAP Board and MPO Policy Committee will recognize, consider and respond to comments received. The GO TO 2040 Plan Update and the FFY 14-19 TIP will be considered for approval by the CMAP Board and MPO Policy Committee in October 2014.

## 1.2 History of attainment status

Based on air quality monitoring data gathered between 1988 and 1990, the northeastern Illinois area was designated as a "severe" nonattainment area for the 1-hour national ambient air quality standard (NAAQS) for ozone by the United States Environmental Protection Agency (US EPA) on November 6, 1991 (56 FR 56694). The northeastern Illinois ozone nonattainment area included the counties of Cook, DuPage, Kane, Lake, McHenry and Will, the townships of Aux Sable and Goose Lake in Grundy County and Oswego Township in Kendall County. The Indiana counties of Lake and Porter were also included in the nonattainment area.

On April 15, 2004, US EPA issued final designations of areas not attaining the 8-hour NAAQS for ozone promulgated in 1997 under the Clean Air Act (69 FR 23898). The same area of northeastern Illinois and northwestern Indiana was designated as a "moderate" nonattainment area under this standard. On August 13, 2012, US EPA issued a final rule finding the region in attainment of this standard, approving the Illinois Environmental Protection Agency's (IEPA's) redesignation request, and approving and finding adequate motor vehicle emissions budgets for 2008 and 2025 for volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) for use in conformity (77 FR 48062).

On June 11, 2012, US EPA issued final designations of areas not attaining the 8-hour NAAQS for ozone promulgated in 2008 (77 FR 34221). The northeastern Illinois



nonattainment area included the counties of Cook, DuPage, Kane, Lake, McHenry and Will, the townships of Aux Sable and Goose Lake in Grundy County and Oswego Township in Kendall County. The Indiana counties of Lake and Porter were included in the nonattainment area as were Pleasant Prairie and Somers Townships in Kenosha County, Wisconsin. These areas were designated as marginal nonattainment, meaning that they are expected to attain the NAAQS by the attainment year of 2015.

Based on air quality monitoring data gathered between 2001 and 2003, the northeastern Illinois area was designated as a “moderate” nonattainment area for the 1997 annual PM<sub>2.5</sub> NAAQS by the US EPA on April 5, 2005 (70 FR 944). The northeastern Illinois PM<sub>2.5</sub> nonattainment area includes the counties of Cook, DuPage, Kane, Lake, McHenry and Will, the townships of Aux Sable and Goose Lake in Grundy County and Oswego Township in Kendall County. The Indiana counties of Lake and Porter are also included in the nonattainment area.

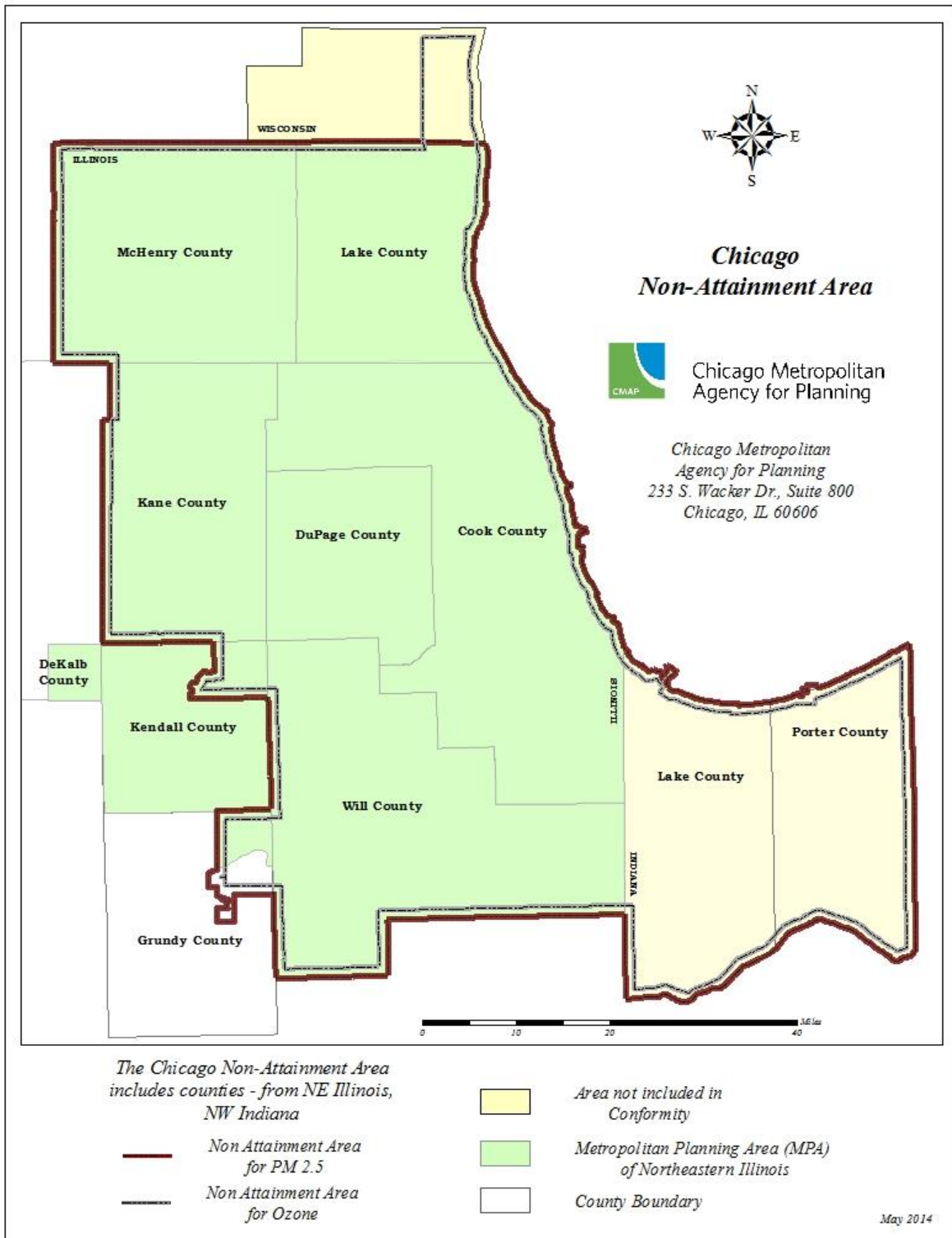
On October 2, 2013, US EPA issued a final rule finding the region in attainment of the 1997 annual PM<sub>2.5</sub> standard, approving IEPA’s redesignation request, and approving and finding adequate motor vehicle emissions budgets for 2008 and 2025 for direct PM<sub>2.5</sub> emissions and NO<sub>x</sub> for use in conformity (78 FR 60704).

On January 15, 2012, US EPA issued a final rule lowering the annual PM<sub>2.5</sub> NAAQS from 15.0 micrograms per cubic meter to 12.0 micrograms per cubic meter (78 FR 3086). On December 13, 2013, IEPA submitted a recommendation to US EPA that the same counties and townships be designated as nonattainment as have been designated for the prior PM<sub>2.5</sub> and ozone NAAQS. US EPA is expected to act on this recommendation by December 2014.

Exhibit 1 shows the nonattainment areas designated by US EPA for ozone and PM<sub>2.5</sub>, as well as the proposed metropolitan planning area. This conformity analysis is for the nonattainment areas within the northeastern Illinois metropolitan planning area. The metropolitan planning area was approved by the CMAP Board and MPO Policy Committee in March 2013 and is awaiting Governor’s approval.



**Exhibit 1: Northeastern Illinois Nonattainment Area for Ozone and PM<sub>2.5</sub>**



### **1.3 Overview of the Conformity Process**

The transportation conformity provisions of the Clean Air Act Amendments of 1990 require that the Metropolitan Planning Organization (MPO) for northeastern Illinois, make a determination that the region's transportation plan, program and projects conform to applicable SIPs and that emissions, taken as a whole from the plan, program and projects will not negatively impact the region's ability to meet the NAAQS deadlines. Conformity to a SIP means that the region's transportation plan and program: 1) will not cause any new violations of the NAAQS; 2) will not cause any worsening of existing violations; and 3) will not delay efforts to attain the NAAQS in a timely manner. This demonstration is conducted by comparing motor vehicle emissions estimates developed from implementation of the GO TO 2040 Plan Update and the FFY 14–19 TIP for specific analysis years to the motor vehicle emissions budgets contained in the applicable SIP.

Although transportation plans and metropolitan TIPs do not need to be approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA), they must approve conformity determinations for the Plan and TIP. In addition, the region's TIP needs to be amended into the Statewide TIP (STIP), which amendment must be approved by FHWA and FTA.

The purpose of this report is to document the process and findings developed as part of the transportation conformity analysis of the GO TO 2040 Plan Update and the FFY 14–19 TIP for northeastern Illinois.

### **1.4 Summary of 8-Hour Ozone Conformity Process**

The IEPA submitted a redesignation request and maintenance SIP for the 1997 8-hour ozone standard to US EPA on March 18, 2009. In 2011, IEPA submitted a revised redesignation request that included proposed budgets developed with the US EPA's MOtor Vehicle Emission Simulator (MOVES) model. US EPA approved these MOVES-based budgets and found them adequate for conformity on August 13, 2012. This conformity analysis will evaluate emissions in the region against these budgets.

Although northeastern Illinois was designated in nonattainment of the 2008 ozone NAAQS, the region was designated as marginal nonattainment, and no further budgets are required; the maintenance SIP budgets can be used for this purpose.

At the [August 28, 2012 Tier II Consultation meeting](#), US EPA staff reported that the portion of southeast Wisconsin designated as nonattainment of the 2008 ozone standard would be able to make its own conformity determination without referencing budgets or analysis years for northeastern Illinois or northwest Indiana. Consequently, this conformity analysis does not refer to southeast Wisconsin.



Northwest Indiana has budgets for the ozone precursors, so northeastern Illinois and northwest Indiana are able to demonstrate ozone conformity independently of each other.

## **1.5 Summary of PM<sub>2.5</sub> Conformity Process**

With the October 2, 2013 final rule approving and finding adequate motor vehicle emissions budgets for 2008 and 2025 for NO<sub>x</sub> and PM<sub>2.5</sub> for use in conformity (78 FR 60704) the region now has budgets, and conformity for northeastern Illinois can proceed without reference to the Indiana portion of the nonattainment area.

Pursuant to final rules published May 6, 2005 (40 CFR 93.102(b)(2)(iv) and (v) and 93.119(f)(9) and (10)), PM<sub>2.5</sub> nonattainment areas are required to perform a regional emissions analysis for direct PM<sub>2.5</sub> motor vehicle emissions and for NO<sub>x</sub> as a PM<sub>2.5</sub> precursor unless the head of the state air agency and the US EPA Regional Administrator make a finding that NO<sub>x</sub> is not a significant contributor to the PM<sub>2.5</sub> air quality problem in a given area. Such a finding has not been made for northeastern Illinois, so this conformity analysis includes NO<sub>x</sub> as well as direct PM<sub>2.5</sub> emissions.

Regional emissions analyses under the annual PM<sub>2.5</sub> standard are not required for VOC, sulfur oxides (SO<sub>x</sub>) or ammonia unless the head of the state air agency or US EPA Regional Administrator makes a finding that on-road emissions of any of these precursors is a significant contributor, or an adequate or approved SIP budget for such precursors is established. Since no budgets have been established for these precursors, nor has a finding of significance been made for the northeastern Illinois nonattainment area, these precursors have not been analyzed for this conformity determination.



## 2.0 FEDERAL ACCEPTANCE OF THE PLAN AND TIP

The most recent federal review of the TIP conformity determination occurred on March 26, 2014. The United States Department of Transportation (US DOT), through the FHWA Illinois Division and the FTA Region V, found that the conformity analysis performed by CMAP met the applicable criteria of 40 CFR 51 and 93, and approved the amendment to the FFY 11-15 TIP.

US DOT acceptance letters are available on the [TIP Archives](#) web page.





## 3.0 INTERAGENCY CONSULTATION

Interagency consultation is required under the transportation conformity rule, as described in 40 CFR 93.105. In the northeastern Illinois region, these procedures are addressed through the consultation process described below and through the work of CMAP's committees, working committees, and other groups as described in the region's [Public Participation Plan](#).

In the northeastern Illinois region, consultation involving CMAP, IEPA, the Illinois Department of Transportation (IDOT), the Regional Transportation Authority (RTA), FHWA, FTA and US EPA and other entities as appropriate facilitates the local, regional and state decision-making process by providing a forum for all affected federal, state, regional and local agencies to discuss and resolve important issues. Decisions made through this interagency consultation process guide CMAP in making the conformity determination.

### 3.1 Consultation Process

The consultation process facilitates the regional planning process in several ways. First, consultation assures early and proactive participation by the US EPA, FTA, and FHWA in the plan and TIP development process. Second, consultation serves as a forum for interagency communication and understanding to prevent or resolve potential obstacles in the conformity process. Finally, the expertise of the federal agency representatives is relied upon for assistance in interpreting air quality regulations, as well as transportation plan and TIP requirements.

Acceptable means of communication for the purpose of consultation include telephone, fax, e-mail, person-to-person communication and arranged meetings. The consultation team has found that having all parties present at meetings greatly facilitates interagency coordination and assures mutual understanding of issues and determinations. Therefore, CMAP relies heavily upon scheduled consultation meetings with federal agency representatives and other members of the consultation team.

The consultation group is comprised of representatives of FHWA, FTA, US EPA, IEPA, IDOT, RTA and CMAP.

The consultation process in northeastern Illinois consists of two levels, or "tiers." Tier I participants include federal representatives from headquarters offices in Washington, D.C. Tier II participants include federal representatives from US EPA's Region V office, FTA's Region 5 office, FHWA's Division Office, IEPA, IDOT, RTA and CMAP. In addition to the standing members of the consultation team, representatives of local transportation implementing agencies and other stakeholders are invited to attend as appropriate. The Tier I consultation team is convened in the event the Tier II team is unable to resolve a particular issue.



The consultation process used during the development of the GO TO 2040 Plan Update and the FFY 14-19 TIP and this conformity analysis consisted solely of Tier II meetings.

The consultation team meets at the CMAP office on an as-needed basis. Every attempt is made to schedule meetings so that all representatives can attend, but the meetings are held whether or not all members are present. No decision is put into effect until the concurrence of all parties involved in the consultation process is achieved.

To provide a reference for discussion items and issue resolution, CMAP staff prepares meeting summaries following the completion of each scheduled consultation meeting. These summaries are reviewed for accuracy and approved by the consultation team at a subsequent meeting. Following resolution of an issue, staff typically provides a verbal update to pertinent CMAP committees to assist committee members in their decision-making processes.

### **3.2 Summary of Formal Consultation Meetings**

Minutes of consultation meetings and other materials used by the Tier II Consultation Team are available on the CMAP web site:

<http://www.cmap.illinois.gov/about/involvement/committees/other-groups/tier-ii-consultation/minutes>.



## 4.0 PUBLIC PARTICIPATION

The [Public Participation Plan](#), adopted by the CMAP Board and the MPO Policy Committee in January 2013 establishes the mechanisms by which CMAP reaches out to its many stakeholders and the public. Specific methods CMAP uses to encourage public participation are documented in the [Unified Work Program](#) appendices.

A formal public comment period for the draft Transportation Conformity Analysis for the PM<sub>2.5</sub> and 8-Hour Ozone National Ambient Air Quality Standards was held from June 13 to August 1, 2014. A formal public hearing was held July 31, 2014. Comments were accepted via fax, the U.S. Mail and via email.

No comments on the conformity analysis were received during the public comment period.



## 5.0 PROCEDURES FOR DETERMINING REGIONAL TRANSPORTATION DEMAND

The procedures for determining regional transportation demand are subject to requirements set out in the conformity regulations, at 40 CFR 93.122(b).

The GO TO 2040 Plan Update appendix, [Travel Model Documentation](#), describes the modeling process used for this conformity analysis. This material demonstrates the inherent behavioral connections between regional land use, demographics and transportation infrastructure and policy input to the quantification of travel demand levels and patterns and the subsequent measurement of transportation system performance, which the models contain.

The following is a description of how CMAP’s demand model meets the specific criteria from the regulations:

<u>Paragraph</u>	<u>Requirement</u>	<u>How the Requirement is Satisfied</u>
(b) (1) (i)	Network-based travel models must be validated against observed counts (peak and off-peak, if possible) for a base year that is not more than 10 years prior to the date of the conformity determination. Model forecasts must be analyzed for reasonableness and compared to historical trends and other factors, and the results must be documented.	The models were validated against the most recent ground counts as documented in the <a href="#">CMAP Travel Demand Model Validation Report</a>
(b) (1) (ii)	Land use, population, employment, and other network-based travel model assumptions must be documented and based on the best available information.	The socioeconomic forecasts used are based on the best available information including census data and a sound methodology as described in the <a href="#">Socioeconomic Forecast Update Overview</a> appendix of the GO TO 2040 Plan Update.
(b) (1) (iii)	Scenarios of land development and use must be consistent with the future transportation system alternatives for which emissions are being estimated. The distribution of employment and residences for different transportation options must be reasonable.	The analysis uses forecasts of population, employment and land use developed by CMAP. The transportation simulation model has been structured with a feedback mechanism. Analysis and scenario testing were performed on land use/transportation interactions during the development and update of GO TO 2040.
(b) (1) (iv)	A capacity-sensitive assignment	Separate capacity restraint assignments are





	methodology must be used, and emissions estimates must be based on a methodology which differentiates between peak and off-peak link volumes and speeds and uses speeds based on final assigned volumes.	produced to estimate vehicle miles and travel speeds for eight time periods during the day. Results of the separate period assignments are accumulated into daily volumes and tabulated by vehicle mile by speed range as required for the emission calculations.
(b) (1) (v)	Zone-to-zone travel impedances used to distribute trips between origin and destination pairs must be in reasonable agreement with the travel times that are estimated from final assigned traffic volumes. Where use of transit currently is anticipated to be a significant factor in satisfying transportation demand, these times should also be used for modeling mode splits.	The modeling process includes five iterations through the steps of distribution, mode split and assignment. The final highway distribution and assignment is based on the times from the fifth iteration. In the iteration process, the highway and transit times for each step are the same for distribution, mode split and assignment.
(b) (1) (vi)	Network-based travel models must be reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices.	The binary logit mode-choice model contains the full range of pricing (or cost) variables in the individual utility equation expressions for both auto and transit. These cost variables include destination zone parking cost, rail station parking cost, automobile operating cost (cents per mile), tolls, and transit fare. The intervening opportunities trip distribution model utilizes a composite impedance measure, also known as the LogSum variable, as a measure of zonal accessibility. The LogSum variable includes travel time and cost associated with both highway and transit travel. In addition the transit path selection uses the transit fares as one of the key parameters in selecting the transit path. The use of transit fares in path building is very important in a region that has transit options including commuter rail, rapid transit, express bus and local bus.



## 5.1 Travel Demand for Ozone Conformity

Since the ozone NAAQS is based on daily measurements, the vehicle miles of travel (VMT) estimates for conformity analysis are daily values. Furthermore, since the highest ozone concentrations are monitored during the summer, the VMT estimates are adjusted to be daily VMT for a summer weekday. The travel demand model runs produce weekday averages over the year, so the VMT results of the model runs are adjusted by increasing the model averages to summer weekday averages, based on analysis of traffic monitoring data by IDOT. The adjusted VMT values are then used as input to the MOVES emissions model. The adjustment factors are:

**Table 1: Daily Average Daily Traffic (ADT) conversion factors**

<b>Facility</b>	<b>Multiplier</b>
arterial	1.0700
expressway	0.9969
local	1.0700
ramp	1.0700



## 5.2 Travel Demand for PM<sub>2.5</sub> Conformity

In contrast to ozone, the annual PM<sub>2.5</sub> NAAQS to which the northeastern Illinois region must demonstrate conformity is based on annual measurements, so the VMT estimates must be annual values. To convert weekday average VMT model output to monthly VMT, traffic monitoring data were obtained from IDOT. The data give the ratio of average weekday traffic to weekly traffic. In addition, the IDOT data supply the ratio of each month to annual traffic. To obtain monthly VMT estimates, the weekday to average (7-day) factor is multiplied by the month-to-year ratio. The following table gives the monthly ADT factors as a percentage of Annual Average Daily Traffic (AADT):

**Table 2: Monthly ADT conversion factors**

<b>Month</b>	<b>Freeway Monthly ADT (% of AADT)</b>	<b>Non-Freeway Monthly ADT (% of AADT)</b>
January	87%	86%
February	95%	87%
March	96%	89%
April	97%	96%
May	96%	99%
June	98%	101%
July	95%	95%
August	98%	97%
September	95%	97%
October	94%	95%
November	94%	94%
December	90%	95%



## 6.0 LATEST PLANNING ASSUMPTIONS

### 6.1 Socioeconomic Forecasts

A major input to any transportation demand modeling process is the socioeconomic data used to develop the number and types of trips to be assigned to the transportation system. There are three components to this data: the geographic or spatial component; the socioeconomic variables used to describe or characterize these areas; and the base and forecast years which define the time horizons for the analysis.

CMAP has systematically forecast 2040 population, employment and economic activity from the land use and transportation strategies found in the GO TO 2040 Preferred Scenario, and revised the forecast for the GO TO 2040 Plan Update based on final 2010 Census data. The CMAP travel demand models are then used to estimate travel behavior, congestion and VMT resulting from these forecasts. Population and employment estimates for interim conformity years are interpolated and tested against transportation improvements expected to be implemented at the time. A description of the method used to prepare the forecasts and data summaries are included in the [Socioeconomic Forecast Update Overview](#) appendix to the GO TO 2040 Plan Update.

### 6.2 Transit Operating Policies

The [Regional Transportation Authority Operating Budget, Financial Plan and Capital Programs](#), which are updated annually, serve as the basis for considering the impact of transit operating policies on travel demand model estimates. These documents include projections over the near term of key transit operating policies including fare, service and ridership levels.

Since the most recent conformity determination was adopted in March 2014, transit operating policies (including fares and service levels) and assumed transit ridership have not changed.

### 6.3 Transit Fares and Highway Costs in the Conformity Analysis

The transportation model used in the conformity analysis requires information on the cost of transportation by each mode. Of particular importance are the relative costs of transportation versus all other costs, and the relative costs of the transit and auto modes to each other. Auto costs used in the model are based on the cost to own and operate an automobile, parking costs and charges for tollway facilities. Transit costs include information on the base fares, transfers and access costs.

It was assumed the relative costs of the two transportation modes (highway and transit) would be the same in the future years as that which existed in the base year. This treatment of future costs for the transit mode and for the toll component of the auto operating cost is consistent with observed trends.





## **6.4 Transportation Control Measures (TCMs)**

TCMs were used in development of SIPs related to the 1-hour ozone standard, including the 15% ROP SIP (1993), Control Strategy SIP (1995), 1996 ROP SIP, 9% Control Strategy SIP (1998) and 9% ROP Control Strategy SIP (1999). All the TCMs adopted for these SIPs were implemented by 1999.

The ozone maintenance SIP and the PM<sub>2.5</sub> attainment SIP, which have budgets found adequate for conformity, assume no TCMs. Thus no such measures are identified here.



## 7.0 EMISSION BUDGETS AND MOVES MODEL SETTINGS

Four analysis years are included in the region's conformity analyses:

- 2015 – the attainment year for the 2008 ozone standard
- 2025 – the horizon budget year for the ozone maintenance SIP
- 2030 – an intervening year not more than 10 years apart from the preceding and succeeding scenario years
- 2040 – the horizon year of the plan

### 7.1 Ozone Conformity

Mobile source emissions budgets for ozone precursors – VOC and NO<sub>x</sub> – were developed by IEPA as part of the 8-hour ozone maintenance SIP. On August 13, 2012, US EPA issued a final rule approving and finding adequate motor vehicle emissions budgets for 2008 and 2025 (77 FR 48062). These budgets are MOVES-based, and enabled the region to comply with the grace period for using MOVES in conformity determinations.

IEPA and CMAP worked closely during the development of the VOC and NO<sub>x</sub> emission budgets to determine the appropriate MOVES model settings. This conformity demonstration uses the same applicable settings in MOVES runs as were used in developing the SIP budgets. A full discussion of the settings and input files is provided in the [Travel Model Documentation](#).

On March 28, 2014, IEPA submitted to US EPA updated motor vehicle emissions budgets for its maintenance SIP. US EPA approved these budgets on May 22, 2014, effective July 21, 2014. These approved budgets are used in this conformity analysis.

### 7.2 PM<sub>2.5</sub> Conformity

On October 2, 2013, US EPA issued a final rule approving and finding adequate motor vehicle emissions budgets for 2008 and 2025 for NO<sub>x</sub> and PM<sub>2.5</sub> for use in conformity (78 FR 60704).

Since the requirements for including VOC, SO<sub>x</sub> or ammonia emissions were not met, these precursors have not been analyzed for this conformity determination.

The northeastern Illinois region was in nonattainment of the annual PM<sub>2.5</sub> standard so the emissions inventory must reflect annual emissions totals. To accomplish this, a daily emission inventory appropriate to each month and day type was developed, and the daily emission value was multiplied by number of days for the month. Monthly emissions were then added to obtain the annual emissions.

A more complete description of the MOVES runs and listings for the input files are given in the [Travel Model Documentation](#).



## 8.0 OFF-NETWORK CALCULATIONS

The final estimate of regional emissions does not include credit for off-network calculations.

However, many of the projects that are not currently incorporated explicitly in the travel demand model have been programmed using federal Congestion Mitigation and Air Quality Improvement funds. These funds are programmed by CMAP on the basis of the project's demonstrated air quality benefits. A benefit evaluation method has been developed for each type of project. The methods are structured so that, if appropriate, a project's benefits can be incorporated in the appropriate SIP by the IEPA as a TCM, or used in conformity determinations.



## 9.0 MODELED PROJECTS

Projects included in the GO TO 2040 Plan Update and the FFY 14-19 TIP transportation demand estimation modeling process are listed on the CMAP web site. Major capital projects included in the GO TO 2040 Plan Update are listed and discussed in detail in the [Major Capital Projects appendix](#) of the GO TO 2040 Plan Update; TIP projects that require conformity are listed on the CMAP [Conformity Analysis](#) web page.





# 10.0 RESULTS OF THE CONFORMITY ANALYSIS

Results of the conformity analysis for the GO TO 2040 Plan Update and the FFY 14-19 TIP are given below. CMAP maintains a policy of accepting amendments and updating the conformity analysis semiannually. The results of the most recent analysis are listed on the CMAP [Conformity Analysis](#) web page.

## 10.1 Ozone Conformity Results

The VOC and NOx emissions estimates for each of the scenario years are shown in Table 3. No credits are taken for projects that have air quality benefits but are not represented within the transportation networks. Emission reductions from the National Energy Policy Act Credit and Clean Fuel Fleet Program have not been claimed.

As shown in the table, the emission results from the conformity analysis for the analysis years show that the VOC and NOx emissions are lower than the applicable SIP budgets, and conformity for the 8-hour ozone standard is demonstrated.

**Table 3: VOC and NOx Emissions in Tons per Summer Day for Ozone Conformity**

Year	Volatile Organic Compounds		Nitrogen Oxides	
	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2015	70.41	117.23	155.83	373.52
2025	47.14	60.13	76.77	150.27
2030	45.57	60.13	70.93	150.27
2040	48.26	60.13	72.62	150.27

## 10.2 PM<sub>2.5</sub> Conformity Results

The direct PM<sub>2.5</sub> and NOx emissions estimates for each of the scenario years are shown in Table 4. No credits are taken for projects that have air quality benefits but are not represented within the transportation networks.

The emission results from the conformity analysis for the analysis years show that the direct PM<sub>2.5</sub> and NOx emissions from motor vehicles are lower than the applicable SIP budgets, and conformity for the annual PM<sub>2.5</sub> standard is demonstrated.

**Table 4: Direct PM<sub>2.5</sub> and NO<sub>x</sub> Emissions in Tons per Year for PM<sub>2.5</sub> Conformity**

Year	Fine Particulate Matter		Nitrogen Oxides	
	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2015	2,609.82	5,100.00	58,764.01	127,951.00
2025	1,676.80	2,377.00	29,911.86	44,224.00
2030	1,602.30	2,377.00	27,824.01	44,224.00
2040	1,676.58	2,377.00	28,607.40	44,224.00

### 10.3 Conclusion

The conformity analysis conducted by CMAP concludes that the GO TO 2040 Plan Update and the FFY 14-19 TIP meet all applicable requirements for conformity for the 8-hour ozone standard and the annual PM<sub>2.5</sub> standard; the GO TO 2040 Plan Update and the FFY 14-19 TIP are recommended for approval by US DOT.

*The Transportation Conformity Analysis for the PM<sub>2.5</sub> and 8-Hour Ozone National Ambient Air Quality Standards* was the subject of a public comment period running from June 13 through August 1, 2014. This report and the accompanying appendices make the determination that the region's transportation plan and program satisfy all applicable criteria and procedures in the conformity regulations and comply with all applicable implementation plan conformity requirements.







Chicago Metropolitan  
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