

# Introduction

The 2035 Transportation Plan Update explains how our community will address its transportation needs, what the priorities include, and how federal, state and local dollars will be used to address highway, mass transit, airports, bikeways and pedestrian walkways. The 2035 Transportation Plan Update may also reference other local or regional agency plans as part of the MACOG region's effort to coordinate multi-modal and intermodal services community-wide.

### **2035 Transportation Plan Update**

The 2035 Transportation Plan Update is being completed in 2010 to comply with the federal requirements for Metropolitan Transportation Plans and corresponding air quality conformity analysis. The current transportation plan and air quality conformity analysis in the MACOG Transportation the Area (TMA) will expire and lapse June 13, 2011.

After careful review, the MACOG as the Metropolitan Planning Organization has identified that the planning assumptions, regional goals, and related regional data used for the update are substantially the same as those used in the 2007 approved plan and the 2009 plan amendment. The MACOG staff also participated in several coordination meetings with the Interagency Consultation Group. Each meeting was designed to discuss and agree to the process, planning assumptions and project reviews as it relates to air quality conformity.

The TP process provides for input from the general public, technical experts, planners, land use management, natural resources, historic preservation groups, other agencies, and the area's elected officials. The Transportation Plan is also required to be financially reasonable. The 2035 Transportation Plan Update identifies revenue sources and anticipated expenditures through 2035.

The 2035 Transportation Plan Update includes corrections to the Travel Demand Forecasting (TDF) Model, which includes the most updated information on state and local level projects.

MACOG develops and manages a TDF model. The TDF model allows MPO staff to add travel

lanes, build or remove roads, and then project the future traffic and the level of service on the major roads and corridors in the MPO region. These models provide a wealth of decision-making knowledge for elected officials who have final responsibility for approving the Transportation Plans.

Further, the overall regional transportation system is evaluated in order to identify and formulate the best solutions through 2035 to the areas of safety, congestion, Intelligent Transportation Systems, highway, transit, bike and pedestrian and multi-modal systems for our region's communities. The 2035 Transportation Plan emphasizes the use of existing roads and alternate modes of transportation as invaluable in addressing and identifying solutions to congestion problems.

### **Enabling Legislation – SAFETEA-LU**

SAFETEA-LU, the Safe, Accountable, Flexible, Efficient, Transportation Equity Act – A Legacy for Users, was passed by Congress in 2005 and established the rules and requirements for obtaining federal funding assistance for public transportation programs and federally funded highway projects. SAFETEA-LU established the current guidance on metropolitan and state planning requirements and also set forth the funding formulas and mechanisms used to appropriate highway and transit funding throughout the nation. Finally, SAFETEA-LU requires that each MPO prepare a transportation plan for the region concerned.

### **Transportation Management Area**

Areas with urban populations over 200,000 are designated under the Intermodal Transportation Efficiency Act (ISTEA), the transportation act that pre-dates SAFETEA-LU and TEA-21, as Transportation Management Areas, or TMAs. All three Acts enhance the urban transportation planning requirements, which allow urban area elected policy boards to identify and manage projects based on the area's needs and community interests.

The Metropolitan Planning Area (MPA) boundary is based on the Census Bureau's urbanized area and includes areas anticipated to be urbanized over the next twenty years.

However, in areas that have been designated as ozone non-attainment areas, like St. Joseph and Elkhart Counties, MPOs are required to extend their planning and analysis boundaries to cover the non-attainment area. ISTEA, TEA-21 and SAFETEA-LU programs and projects are closely tied to the 1990 Clean Air Act Amendments. Areas like the MACOG region are required to analyze the transportation projects that are included in the 2035 TP to assure that adding capacity to the regions road system won't worsen the region's air quality. More formally, the analysis process is known as an Air Quality Conformity Analysis.

SAFETEA-LU provides that MPOs covering TMAs are responsible for prioritizing and selecting projects within its jurisdiction including the selection of state projects in the area. Of course, because all Transportation Plans are required to be fiscally constrained, MPOs must work cooperatively with their state and federal partners to assure project compatibility.

#### **Eight Planning Factors**

The Transportation Plan addresses eight planning factors:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.
- Increase the safety of the transportation system for motorized and non-motorized users.
- Increase the security of the transportation system for motorized and non-motorized users.
- Increase the accessibility and mobility options available to people and for freight.
- Protect and enhance the environment, promote energy conservation and improve quality of life, promote consistency of transportation plan and transportation improvements with State and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system.

#### **Supporting Transportation Needs for 25 Years**

MACOG has maintained a Travel Demand Forecasting Model since the early 1980's. The original model was kept on a main frame computer system located at the University of Notre Dame and was accessed by the MACOG staff via a telephone. It was a rather cumbersome system compared to the Travel Demand Forecasting software models of today.

In the mid 80's, as computers and technology boomed, MACOG and most of the Indiana MPOs converted to the MINUTP software package. Today the majority of the MPOs in Indiana use TransCAD.

Prior to the Clean Air Act, MPO's were required to update their TP's and their TDF models every five years. Today non-attainment areas are required to make updates every four years. In either case, MPOs must use the most recent and up-to-date, data as part of the update process.

TransCAD, like other Travel Demand Forecasting software, is designed to project or forecast traffic volumes (the number of cars on a given segment of road every day) into the future. The program uses area-specific information about population, school enrollment, household size, auto ownership, travel patterns, journey-to-work data, employment, income data and road specific data, such as facility type, functional classification, current traffic volumes etc. A more detailed description of the model, socio-economic inputs, and methodology are discussed later in this document.

Using the TransCAD software program along with the local geographic information system (GIS), the original network of roads and highways, which are functionally classified (i.e. principal arterial, minor arterial, collector, etc.), were updated for the 2005 model base year. The network is segmented into links with each link representing a stretch of road. The current network has between 4,000 to 6,000 links. The two counties (Elkhart and St. Joseph) are divided

into sections called Transportation Analysis Zones (TAZ). The two counties have 431 TAZs. These TAZs are used to aggregate socio-economic data for the base year (2005), interim years and the target year of 2035.

A more detailed explanation of the model and the model output can be found in the “Network Model” section of this report.

The 2035 TDF model sets the stage and provides the data necessary for the identification of projects. The model can forecast the levels of service and how traffic patterns may change given one scenario or another. The TDF model obviously becomes an important tool in project identification and selection, which may ultimately become an important reality, in that it provides decision-makers with the tools that, set the stage for future transportation efficiency. The effectiveness of a region’s overall transportation system has a great positive or negative impact on economic growth and the area’s quality of life issues, which is to some extent dependent on sound data, early planning and good decision-making.

The Congestion Management Process, another method for identifying congestion, is also examined to determine the various strategies that might be implemented to reduce congestion from developing. As a non-attainment area, the region is also required to complete an SOV (Single-Occupant Vehicle) analysis on all 2035 Transportation Plan projects.

#### **More on the CAA and SAFETEA-LU**

In November of 1990, President George H. W. Bush signed the Clean Air Act Amendments (CAA). The CAA legislation, under the operation of the law, identified all non-attainment areas in the United States with regard to air quality. It also outlined the rules, regulations and requirements for achieving the National Ambient Air Quality Standard (NAAQS), the minimum standards for air pollutants in the environment. Most recently, June 15, 2004, Elkhart and St. Joseph Counties were designated as basic non-attainment areas for the 8-hour ozone air quality standard. Elkhart and St. Joseph Counties constitute one basic non-

attainment area for ozone and are required to comply with the CAA’s requirements and various sanctions for non-compliance.

The CAA defines air pollution as coming from several different sources: stationary, point, and mobile sources. Mobile source air pollution comes from automobile tailpipe exhaust fumes (NO<sub>x</sub> and Volatile Organic Compounds or VOCs) that mix in the atmosphere with sunlight and create harmful ground level ozone, which negatively impacts air quality. Therefore, the CAA has a direct relationship with SAFETEA-LU.

The CAA provides an enforcement mechanism by which states and non-attainment areas can be sanctioned for non-compliance with the CAA. The requirements of the CAA, ISTEA, TEA-21, and SAFETEA-LU bind these Acts into sister documents that influence one another. SAFETEA-LU projects may not be implemented without compliance to all of the requirements of the Clean Air Act.

Thus, for each non-attainment area, the MPO, in developing a Transportation Plan with a minimum 20 year horizon and 3-year TIP (Transportation Improvement Program), must also complete an Air Quality Conformity Analysis showing that all of the added capacity (travel lanes) projects included in the transportation plan will not worsen the air quality of the area. This analysis is accomplished using an EPA developed software model known as Mobile 6.2.

The 2035 Transportation Plan Update has been reviewed to assure that the plan conforms to the Clean Air Act by not exceeding the emission budgets set in the Indiana State Implementation Plan (SIP) over the 26-year plan horizon. The emissions budgets and the modeled Mobile 6.2 emissions through the year 2035 can be found in the Air Quality Conformity Report at the end of this document.

#### **Conformity MOU**

The Memorandum of Understanding (MOU) outlines the responsibilities of participating agencies in reviewing and approving the conformity analysis for the 2035 Transportation Plan (See Air Quality Conformity Report). The

current MOU is identified as an Attachment in the Conformity Report.

Minutes of meetings, which included the affected agencies reviewing the MACOG TP and Conformity Analysis, can be found as attachments to the Air Quality Conformity Report.

**MACOG Organization and Process**

The Michiana Area Council of Governments (MACOG) is the designated Metropolitan Planning Organization (MPO) for both Elkhart and St. Joseph Counties in Indiana. It also represents the interests of Kosciusko and Marshall Counties, rural counties, which are part of the Council of Governments.

Notably, Metropolitan Planning Organizations exist via specific federal legislation in urbanized areas with populations exceeding 50,000. MPOs are charged with the responsibility of developing a comprehensive, cooperative, and coordinated transportation planning process in urban areas. Through this planning process, federal funds can be programmed for highway, transit, bike and pedestrian walkways, bridges, railroads and other transportation related multi-modal systems affecting the movement of people and goods. The MACOG urbanized areas are unique in that Niles, MI is part of the South Bend, IN urbanized area and the Elkhart/Goshen urbanized area is separate from the South Bend urbanized area. Under agreement, the Southwest Michigan Planning Commission handles the planning for the Michigan portion of the South Bend urbanized area. Indiana has fourteen Metropolitan Planning Organizations.

**The MACOG Policy Board**



The transportation planning process is under the direction of the policy bodies of the Michiana Area Council of Governments (MACOG) and the Southwest Michigan Planning Commission (SWMPC). The policy committees are responsible for general guidance and administrative coordination of all policy relating to the development of the transportation plan and its implementation

within the South Bend and Elkhart/Goshen Urbanized Areas.

---

**MACOG Policy Board Membership**

---

- Mayor, City of South Bend
  - Councilperson, City of South Bend
  - Mayor, City of Mishawaka
  - Councilperson, City of Mishawaka
  - Mayor, City of Elkhart
  - Councilperson, City of Elkhart
  - Mayor, City of Goshen
  - Mayor, City of Nappanee
  - Mayor, City of Plymouth
  - County Commissioner, Elkhart County
  - Councilperson, Elkhart County
  - County Commissioner, Marshall County
  - Councilperson, Marshall County
  - County Commissioner, St. Joseph County
  - Councilperson, St. Joseph County
  - Mayor, City of Warsaw
  - County Commissioner, Kosciusko County
  - Councilperson, Kosciusko County
- 

MACOG is responsible for ensuring that the overall planning process is accomplished in a consistent manner, reflective of the area goals, objectives, and policies. The Policy Board reviews and evaluates alternative transportation planning concepts and alternative plans. In addition, the Policy Board is charged with the responsibility of monitoring the planning process and establishing policies for participating agencies.

Unresolved policy issues concerning both agencies (MACOG and SWMPC) are subject to review by the Bi-State Coordinating Committee. All members of the Bi-State Coordinating Committee are elected officials representing political jurisdictions in the South Bend and Elkhart/Goshen Urbanized Areas. This committee meets only when issues before it require action to be taken. The Executive Director of the MACOG is also the Executive Director of the Bi-State Coordinating Committee, as established by the agreement, which originally created the Committee. The Michiana Area Council of Governments is also the office of record and the Executive Director of MACOG is the Study Director.

At a joint meeting with the Federal Highway Administration (FHWA) and Michigan

Department of Transportation (MDOT) in February of 1979, it was determined that transportation planning for the Niles area should be proportionate with the size and character of the Niles area (10% by 1980 census of population).

However, since the implementation of ISTEA, the practice of automatically designating a percentage of the Indiana apportionment must be restricted to operating assistance only. Capital funds will be awarded based on the submission of five-year capital plans and system needs. The requirements are that each system in the South Bend Urbanized Area provides the MACOG with an acceptable five year capital plan, properly executed financial capacity documentation, and an accurate retirement schedule for vehicles. MACOG reserves the right to inspect equipment designated as replacement and requires disposition documentation for replacement equipment.

Transportation planning for the Niles area began in FY1980 and has a locally oriented approach. This approach has added relevance and usefulness to the citizens and taxpayers of the Niles area, as well as to the MACOG's overall region.

A policy committee, the Niles Area Transportation Study (NATS) Review Committee, was established during FY1980. This Review Committee is composed of local elected officials and businessmen. It reviews and officially approves recommendations of the NATS Technical Advisory Committee. The provision of this forum for cooperative decision-making by local policy-makers is designed to enhance the transportation planning process, as well as expediting the resolution of problems and issues concerning the Niles portion of the South Bend Urbanized Area.

All policy-level meetings are announced in advance and conducted as public meetings with all agendas having a privilege of the floor item. A courtesy mailing list is attached to each committee roster. This affords all interested citizens, as well as private sector enterprises in the area, an opportunity to receive meeting notices and program materials. The news media is regularly informed regarding agenda items,

---

#### MACOG TTAC Membership

---

Director, Mishawaka Planning Department  
City Engineer, City of South Bend  
City Engineer, City of Mishawaka  
County Engineer, St. Joseph County  
Air Quality Officer, St. Joe County Health Dept.  
Airport Manager, South Bend Regional Airport  
General Manager, South Bend PTC  
Director, South Bend Comm. Dev. Dept  
Director, St. Joe County APC  
Director, Elkhart County Planning Department  
City Engineer, City of Elkhart  
City Engineer, City of Goshen  
County Engineer, Elkhart County  
Director, Marshall County Planning Dept.  
County Engineer, Marshall County  
County Highway Manager, Kosciusko County  
GIS Department, Kosciusko County

and follow-up interviews are available when requested. MACOG staff is in general attendance at these meetings.

#### Transportation Technical Advisory Committee

City and county planners, engineers and pollution control officials, and public transportation providers are represented on the MACOG Transportation Technical Advisory Committee (TTAC), from each of the represented jurisdictions and other areas of transportation significance.

The TTAC serves as the advisory group to the MACOG Policy Board. They are responsible for reviewing activities of the respective staff, for conducting surveys and acquiring data for inventory and analysis purposes that relate to economic and demographic factors, land use, travel patterns, traffic control codes, regulations and ordinances, financial resources and social and community value factors. In addition, the TTAC prepares recommendations for scheduling by continually collecting, reviewing and analyzing data on all elements of the Transportation Plan. Data and information collection, analysis, presentation, review and approval are vital to a successful planning process. Staff level inquiries and consultations, as well as timely, meaningful responses with local government and implementing agency officials are procedurally essential to the planning process.

The Niles Area Transportation Study Technical Advisory Committee (NATSTAC) provides a function similar to the South Bend/Mishawaka, Elkhart/Goshen TTAC. The NATS Committee is composed of a wide variety of representatives. The NATSTAC provides technical expertise through manager, engineer and operator representation of the implementing agencies. Representatives from MDOT, area planning commissions, MACOG, the airport, local health departments, and a Niles transportation consultant are also included, and public involvement is accomplished through two voting public-at-large representatives.