

## **CHAPTER 12**

# **CONFORMITY DETERMINATION**

### **Introduction**

The analysis of the Syracuse Metropolitan Transportation Council's (SMTC) 2020 Long-Range Transportation Plan (LRTP) indicates that the emission levels for the analysis year 2020 are less than the emission levels for the base year.<sup>6</sup> The policies contained in the LRTP support the intentions of the Clean Air Act in maintaining the National Ambient Air Quality Standards (NAAQS). The LRTP goals, directives, recommendations and policies are in conformance with the State Implementation Plan (SIP) requirements.

### **Background and Conformity Requirements**

The SMTC area consists of Onondaga County, which is a maintenance area for carbon monoxide. In 1991, the SMTC nonattainment area was redesignated from the Syracuse Metropolitan Statistical Area (MSA), consisting of the four counties of Cayuga, Madison, Onondaga and Oswego, to Onondaga County alone. Onondaga County will remain a maintenance area until the year 2013.<sup>6</sup> The conformity analysis performed by the SMTC, in cooperation with the New York State Department of Transportation (NYSDOT), indicates that the SMTC area will continue to attain emission levels in conformance with requirements. The conformity test for the SMTC maintenance area must demonstrate that, once a project is built, the emissions impacts of a proposed project will be less than the emissions in SMTC's base year and that Transportation Control Measures (TCMs) are being implemented in a timely manner.<sup>6</sup> The conformity analysis prepared during 2001 for the SMTC area is included in this 2001 Update as an Appendix.

### **Generation of Vehicle Miles Traveled and Average Speed Forecasts**

The SMTC uses the Syracuse Intermodal Model (SIM) to estimate the study area peak hour transportation demand. The SIM is a stand-alone package that adds bicycle, pedestrian and transit travel to the T-Model, thereby giving the traffic modeling process a multi-modal character instead of a straight traffic model. The data forecasts used in the model are derived from several sources. The population estimates are obtained from US Census data. The future population and growth estimates were prepared by the Syracuse-Onondaga County Planning Agency (SOCPA). The employment data was obtained from the New York State Department of Labor. Travel data for

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<sup>6</sup> Although the base year was theoretically 1991, the 20-year maintenance area designation started two years later, as of September 1993. Consequently, the Onondaga County maintenance area designation remains in force until 2013.

transit was included in the modeling, taking into account CENTRO's fixed route service, as well as bicycling and walking. CENTRO's paratransit service is treated as shared ride trips.

**Projects Included in the Analysis**

Transportation projects which will not change the operating characteristics of a roadway are exempt from the Transportation Improvement Program (TIP) conformity analysis. Conformity analysis must be performed on those non-exempt projects which effect the distance, speed or capacity of a roadway. All non-exempt projects that could be modeled were included in the 2020 scenario. Table 12-1 lists the non-exempt projects included in the conformity determination analysis.

**Table 12-1**

Non-Exempt Projects Included in the Analysis			
PIN	Project	General Scope	In TCM?
3035.19	County Route 57 Improvements – Phase IV	Reconstruction to add turning lanes at intersection of SR 31 and CR 57.	
3037.56	Route 31 bridge at Belgium over the Seneca River	Widening of Route 31 to reduce vehicle hours of delay and safety deficiencies.	
3752.81	Kirkpatrick/Court/Solar	Realign Court/Kirkpatrick, expand Kirkpatrick to 4 lanes, rehabilitate Solar Street.	
3034.72	Overlap of Routes 5 and 92 from Erie Blvd. Through Lyndon Corners	Final scope undetermined; widening and signal improvements at intersections over a one-mile stretch of Route 5.	
3037.53	Route 31 – Soule Road to Henry Clay Blvd.	Widening of Route 31 to reduce vehicle hours of delay and safety deficiencies	
3037.59	Route 31 – CR 57 to Soule Road	Widening of Route 31 to reduce vehicle hours of delay and safety deficiencies	
3802.10	Baldwinsville By-Pass	Roadway from Route 31 in Lysander to Route 48 in Van Buren, including the bridge over river	
3802.75	Syracuse Signal System Interconnect	Improvement, interconnection, and computerization of up to 145 signal controllers in downtown Syracuse; includes Downtown and University Hill area.	✓
3803.79	Clinton Square	Closure of Erie Boulevard, new traffic pattern and subsequent pedestrian improvements.	
Source: Syracuse Metropolitan Transportation Council, 1999-2004 Transportation Improvement Program. "PIN" stands for project identification number; "TCM" indicates whether the project is a Transportation Control Measure.			

**Emissions Modeling**

The emissions analysis was based upon the most recent emission estimates from the MOBILE 5B model. The results of the model are an estimate of the total daily carbon

monoxide (CO) emissions from mobile sources (cars, buses, trucks) in Onondaga County. This emissions analysis is based on calculations for a winter day with vehicle, traffic and weather conditions that are the most conducive to carbon monoxide production. The analysis includes implementation of the enhanced Inspection/Maintenance (I/M) Program and the Low Emission Vehicle (LEV) Program. The I/M Program includes an inspection for tampering with emission controls or misfueling, use of computerized emission analyzers and inspection of on-board diagnostic systems. The LEV Program is a voluntary program between auto manufacturers, the United States Environmental Protection Agency (USEPA), and the states, whereby manufacturers agree to comply with tailpipe standards more stringent than USEPA can mandate prior to model year 2004.

### **Results of the Emissions Modeling**

The modeling output shows that carbon monoxide emissions are projected to be reduced by 47.46% between the forecast year of 2020 and the base year of 1991. The analysis indicates the completion of construction or implementation of projects on the TIP, and which are consistent with the LRTP, will result in emission levels that are lower than the 1991 base year.

In addition to the required emissions level conformity test, the SMTC staff and the NYSDOT analyzed several milestone years between the 1991 base year and the 2020 plan year. The results of these analyses demonstrate the gradual reductions in carbon monoxide emissions over time for the milestone years.

### **Timely Implementation of Transportation Control Measures (TCMs)**

The LRTP provides for the implementation of all remaining TCMs in the SIP. The status of the six TCMs, which are the basis of the Syracuse Onondaga Air Quality Maintenance Plan, is shown in Table 12-2.

**Table 12-2**

Status of Transportation Control Measures (TCMs)		
TCM	Purpose	Status
Central Business District Signal System Interconnect	To interconnect traffic signals with a centralized computer-based master control system that helps to reduce stops and delays at the intersection and thereby increase travel speeds on the road network.	Complete.
Traffic Operation Improvements	To improve traffic flow through intersections and along corridors by applying operational improvements.	Complete. PIN 3104.13, Route 298, Syracuse to Carrier Circle is on the 1999-2004 TIP for construction in May 2001.
Special Event Traffic Management Plan	To reduce major event or multiple events-related traffic impacts on the surrounding roadways and on the air quality	Complete.
Transportation Demand Management (Connections)	To increase the number of people who share rides to work, thereby increasing automobile occupancy and reducing the number of single occupant automobiles and the extent of congestion.	Complete.
Transit Service Expansion/Improvement	To increase transit ridership and reduce single occupant vehicle trips.	Complete.
Alternative Fuel Vehicles Project	To examine the use of natural gas fueled buses for CNYRTA.	Complete. CNYRTA continues to purchase natural gas buses when replacing old buses.
Source: New York State Department of Environmental Conservation, New York State Implementation Plan Redesignation Request of Onondaga County as Attainment for Carbon Monoxide, Revision, November 1992.		

**Table 12-3**

Transportation Control Measures (TCMs) Update				
PIN	Project	1994-1999	1999-2004	Comments
303519	RT 57, phase IV, Gaskin to RT 31	Construction 11/96		Implemented
310412	RT 635, RT 5 to RT 298	Construction 11/94	Construction 6/98	Implemented
310413	RT 298, Syracuse to Carrier Circle	Construction 11/98	Construction 4/02	To be implemented 4/02
375206	Harrison Street Traffic Signal	Construction 9/95		Implemented
375207	Buckley Road Improvements at Bear Road	Construction 11/95		Implemented
380272	Oncenter Signs	Construction 1/94		Implemented
380275	Downtown Syracuse Signal Interconnect System	Engineering 11/96	Construction 7/96	Implemented
380307	Connections Ride Sharing Program	CNYRTA receives Connections funding every year for their ongoing Ride Share work.		
380312	AVL System	Construction 10/96		Implemented
382074	Fare Collection System	Construction 10/96		Implemented
382089	Shelter Schedule Panels	Construction 10/94		Implemented
Source: Syracuse Metropolitan Transportation Council, 1999-2004 Transportation Improvement Program.				

As shown in Table 12-3, of the 11 specific projects listed in the Onondaga County portion of the SIP as TCMs, ten have been implemented and one is progressing although slightly behind schedule. One project is programmed in the TIP for construction later this year. One TCM project, pavement rehabilitation and traffic operation improvements, scheduled for Route 298 west of Carrier Circle (PIN 3104.13) has experienced a delay from the original schedule. The delay in this project results from some project implementation issues and funding constraints. The project is programmed in the 1999-2004 TIP for implementation, with construction in 2002.