MEMORANDUM REPORT NO. 203
(2ND EDITION)

A CONGESTION MANAGEMENT PROCESS FOR SOUTHEASTERN WISCONSIN

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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1. INTRODUCTION

Federal regulations require that the transportation planning process for a transportation management area (TMA)[1] include the development and application of strategies designed to address the undesirable effects of congestion on the movement of people and freight. Specifically, Federal regulations require that congestion in a TMA be addressed through a systematic and regionally accepted congestion management process (CMP). Federal regulations further require that a CMP be developed, established, and implemented as part of a metropolitan transportation planning process. Specific elements of the CMP include:

- Definition of congestion management objectives and appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies for the movement of people and goods

- Establishment of a coordinated program for data collection and system performance monitoring to define the extent and duration of congestion, to contribute in determining the causes of congestion, and evaluate the efficiency and effectiveness of implemented actions

- Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies that will contribute to the more effective use and improved safety of existing and future transportation systems based on the established performance measures (strategies considered should include demand management, operational improvements, public transit improvements, and additional highway system capacity—with highway capacity expansion considered after other strategies and a determination that these other strategies cannot fully address the identified congestion)

- Identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy (or combination of strategies) proposed for implementation

- Implementation of a process for periodic assessment of the effectiveness of implemented strategies, in terms of the area's established performance measures

1.1 CMP as Part of the Metropolitan Planning Process

In accordance with Federal requirements, SEWRPC has long incorporated CMP elements into the land use and transportation planning process for the Southeastern Wisconsin Region. The Commission first adopted a regional land use plan and supporting regional transportation plan in 1966. Both plans had a design year of 1990. Since then, the Commission has adopted a new generation of the regional land use and transportation plan about every 10 years. This 10-year cycle allows time for new socioeconomic data and land use and transportation inventory data to become available, strengthening future land use and transportation forecasts used to prepare the plan. The Commission conducts Federally required interim reappraisals of the land use and transportation plan every four years. The regional land use and transportation plan is developed and reappraised under the guidance of the Commission's Advisory Committees on Regional Land Use Planning and Regional Transportation Planning.[2]

Development of the Commission's regional land use and transportation plans are guided by eight basic principles:

- Land use and transportation planning must be regional in scope

- Land use and transportation planning must be conducted concurrently and cannot be separated

[1] *A transportation management area is defined as an urbanized area established by the U.S. having a population greater than 200,000.*

[2] *The Advisory Committees on Regional Land Use Planning and Regional Transportation Planning oversee the Commission's work efforts that result in the preparation of Southeastern Wisconsin's regional land use and transportation plans. The Committees include representatives of the seven counties and 147 municipalities of the Region, representatives from the Wisconsin Department of Transportation (WisDOT) and Wisconsin Department of Natural Resources (WDNR), and representatives from the U.S. Environmental Protection Agency (EPA).*

- Land use and transportation planning must recognize the existence of a limited natural resource base to which urban and rural development must be properly adjusted to ensure the overall environmental quality of the Region

- The regional land use and transportation planning process is cyclical in nature, alternating between areawide systems planning and local land use and project planning

- Arterial street and highway facilities, public transit facilities, bicycle and pedestrian facilities, and travel demand and transportation systems management measures should be planned together

- Transportation facilities should be planned as an integrated system

- Transportation systems planning must recognize the role of transportation in the achievement of personal and community goals

- Transportation systems planning must recognize the importance of properly relating the regional transportation system to the State and national systems

The transportation component of the regional land use and transportation plan is explicitly designed to serve, and to be consistent with, the land use component of the plan. All future needs for transit, streets and highways, and other transportation improvements considered in the development of the transportation component of the plan are derived from the future growth proposed in, and the projected travel from, the planned land use in the Region.

1.2 Presentation of the Congestion Management Process

The remaining sections of this CMP include:

- Congestion management objectives and performance measures (Section 2)

- Congestion management strategies to address existing and probable future congestion (Section 3)

- Implementing and evaluating congestion management strategies (Section 4)

2. CONGESTION MANAGEMENT OBJECTIVES AND PERFORMANCE MEASURES

This section describes the development of congestion management objectives and performance measures for the Southeastern Wisconsin regional transportation system.[3] In Southeastern Wisconsin, the objectives and performance measures developed as part of the regional transportation planning process have long included objectives and performance measures related to congestion management. Specifically, the congestion management objectives and performance measures are developed, reviewed, and refined as part of the development of the regional transportation plan updates that occur approximately every ten years, and during its interim review and update occurring every four years. The objectives and performance measures are developed and refined under the guidance of the Advisory Committee on Regional Transportation Planning. In addition to the regional performance measures identified as part of the regional transportation planning process, a number of the national performance measures created by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are related to congestion management. The remainder of this section documents the congestion management objectives and performance measures for the Southeastern Wisconsin Region.

[3] *The regional transportation system is defined and refined as part of the development of the regional transportation plan, and primarily consists of the arterial street and highway system (surface arterials and freeways), public transit systems, bicycle/pedestrian facilities, travel demand management measures, transportation system management measures, and freight transportation.*

2.1 Congestion Management Objectives

The Commission's regional transportation plans have long included objectives relating to the managing of congestion within the Region. While reviewed and refined as part of each generation of the regional plans, the congestion management-related objectives can be generalized as one of the following:

- A multi-modal transportation system network that serves that regional land use plan and meets the demand generated by existing and planned travel

- A transportation system that provides the efficient and safe movement of people and goods throughout the Region

Beyond upgrading the highway systems, development of a multi-modal system that includes high-quality, robust transit services and bicycle/pedestrian networks provides reliable alternatives to automobile travel, and the provision of travel demand management measures, such as park-ride lots, can encourage higher-occupancy automobile travel. Collectively, the multi-modal system can mitigate congestion, particularly in heavily travelled corridors and densely developed areas, by more efficiently utilizing the traffic carrying capacity of arterials.

Improving the efficient and safe movement of people and goods, in part, involves reducing the congestion on the arterial street and highway system—both recurring and nonrecurring congestion. Even with provision of a robust multi-modal system, recurring traffic congestion may still occur during peak travel times of an average weekday. In addition, nonrecurring traffic congestion can occur from specific incidents, both planned and unplanned, such as reductions in roadway capacity associated with traffic incidents, weather, and work zones, or it may also be associated with traffic generated by special events.

2.2 Congestion Management Performance Measures

This section describes the congestion management performance measures utilized to identify system deficiencies and needs, evaluate alternative congestion management plans, and monitor the achievement of the congestion management objectives as part of the regional planning process. The performance measures are grouped based on those that assess the implementation of the recommended multi-modal transportation system (public transit, bicycle/pedestrian, and TDM networks); measures that monitor recurring congestion; measures that monitor nonrecurring congestion; and the National performance measures.

2.2.1 Multi-Modal Performance Measures

The multi-modal congestion management performance measures consist of performance measures related to the level and quality of the existing transit, bicycle/pedestrian, and traffic demand management system. The multi-modal performance measures as part of the CMP are described in more detail below.

- **Transit Service Level** – This performance measure monitors the amount of transit service provided in the Region using annual vehicle-miles of revenue service.

- **Transit Passenger Boardings** – This performance measure monitors the level of use of the various transit services of the Region by the number of passenger boardings.

- **Access to Transit** – This performance measure monitors the level of accessibility of the transit system by the number and percent of people residing, and jobs located, within walking distance of public transit service.

- **Access to Fixed-Guideway Transit** – This performance measure monitors the level of accessibility to fixed-guideway transit by the number and percent of people residing, and jobs located, within walking distance of fixed-guideway transit service.

- **Transit Service Quality** – This performance measure monitors the level of transit service quality—Excellent, Very Good, Good, and Basic[4]—determined based on the amount and speed of transit service provided by the transit operators in the Region.

- **Accessibility via Transit** – This performance measure monitors the level of access to jobs and other activity centers and destinations in the Region via transit. With respect to accessibility to jobs via transit, the number of jobs accessible from an area within 30 minutes is estimated and compared to the number of people residing in the area. With respect to accessibility to activity centers and destinations, average travel times to each major activity center and destination[5] from an area within a reasonable timeframe[6] is calculated.

- **Number of People Living in Walkable Areas** – This performance measure monitors how many people reside in the walkable areas of the Region based on the aggregate walk scores for an area directly from WalkScore® (www.walkscore.com), a private company that specializes in estimating walkability. These scores represent ratings of the walkability of an area on a scale of 0 to 100 using a methodology developed by the company based on pedestrian friendliness metrics (such as population density, block length, and intersection density) and walking distance to destinations (such as schools, parks, retail services, and employment). Areas with scores of over 50 are considered walkable.

- **Bicycle Level of Service** – This performance measure monitors the quality of the bicycle accommodations provided on the arterial street and highway network based on the Bicycle Compatibility Index (BCI) developed by FHWA to determine how traffic operations impact a bicyclist's decision to use a specific roadway. The BCI methodology considers several variables with specific values that factor into the decision by a bicyclist to ride or not ride on a roadway, including type of bicycle accommodation provided, adjacent land uses, traffic volumes, and traffic speeds. The BCI score calculated for each surface arterial street and highway link are then converted to letter grades (A-F), representing the relative BLOS for each road link, with "A" being the highest level and "F" the lowest.

- **Access to Park-Ride Facilities** – This performance measure monitors access to park-ride facilities based on the number and percent of residents living within three miles of a park-ride lot, including lots served by public transit.

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[4] *Areas with "Excellent" transit service are areas that are typically within walking distance of at least one rapid transit station, and also within walking distance of multiple frequent local or express bus services. A resident living in an area of the Region with Excellent transit service has a high likelihood of not needing to own a car.*

Areas *with "Very Good" transit service typically include parts of the Region that are within walking distance of a rapid transit or commuter rail station, but may have fewer local or express bus routes nearby than an area with Excellent service. Alternatively, areas with Very Good service may not be within walking distance of a rapid transit or commuter rail station, but may instead be near multiple frequent local and express bus routes.*

To *have "Good" transit service, an area would be within walking distance of one local or express bus route that provides service at least every 15 minutes all day, or may be near three or more local bus routes that do not provide frequent, all-day service. An area with Good transit service typically would not have access to a rapid transit line.*

If *a part of the Region is served by "Basic" transit service, it is within walking distance of at least one local bus route, but generally not more than two routes. The routes are not likely to have service better than every 15 minutes all day.*

[5] *Major activity centers include retail centers, major parks, public technical colleges/universities, health care facilities, and grocery stores. Reginal destinations include the Milwaukee Regional Medical Center (MRMC), Milwaukee Mitchell International Airport, and downtown Milwaukee.*

[6] *A reasonable timeframe is defined as 30 minutes for the major activity centers, the MRMC, and the Milwaukee Mitchell International Airport, and as 60 minutes for downtown Milwaukee.*

2.2.2 Recurring Congestion Performance Measures

Recurring traffic congestion is principally measured by the level of peak hour traffic congestion that occurs on the average weekday on each segment of the arterial street and highway system in Southeastern Wisconsin. Such congestion is categorized as moderate, severe, or extreme, with each level described by travel speed, operating conditions, and level of service. Additional performance measures are provided for regional freeway system congestion and for freight traffic movement congestion. Recurring traffic congestion is also measured by travel speeds, including peak hour travel speeds and travel time to important places. The recurring traffic congestion performance measures as part of the CMP are described in more detail below.

- **Average Weekday Congestion on the Total Arterial Street and Highway System** – This performance measure monitors the level of congestion on the arterial street and highway system based on estimated average weekday congestion on each arterial segment.

- **Average Weekday Congestion on the Freeway System** – This performance measure monitors the level of congestion in more detail on the regional freeway system based on the estimated number of hours of congestion experienced at each level of congestion—extreme, severe, and moderate—on an average weekday.

- **Average Weekday Congestion on the Regional Highway Freight Network** – This performance measure monitors the level of congestion experienced on the regional highway freight network.

- **Peak Hour Travel Speeds** – This performance measure monitors peak hour travel speeds on selected freeway and surface arterial street segments.

- **Accessibility via Automobile** – Similar to the accessibility via transit measure, this performance measure monitors the level of access to jobs and other activity centers and destinations via an automobile. With respect to accessibility to jobs by automobile, the number of jobs accessible from an area within 30 minutes is estimated and compared to the number of people residing in the area. With respect to accessibility to activity centers and destinations, average travel times to each major activity center and destination[7] from an area within a reasonable timeframe[8] is calculated.

2.2.3 Nonrecurring Traffic Congestion

Since nonrecurring congestion is caused by unpredictable or infrequent events, the primary means of monitoring nonrecurring traffic congestion in Southeastern Wisconsin is through the number and rate of crashes that occurred in the Region. These measures are based on available vehicular crashes from the Wisconsin Traffic Operations and Safety Laboratory (TOPSLab). The nonrecurring traffic congestion performance measures as part of the CMP are described in more detail below.

- **Number and Rate of Vehicular Crashes** – This performance measure monitors the number and rate of crashes based on the number of crashes that have occurred.

- **Number and Rate of Fatal and Serious Injury Vehicular Crashes** – This performance measure monitors the number and rate of fatal and serious injury crashes.

- **Total Number of Vehicular Crashes Involving Bicycles or Pedestrians** – This performance measure monitors the number of bicycle and pedestrian crashes that have occurred, along with the number of such crashes that resulted in a fatality or serious injury.

[7] *Major activity centers include retail centers, major parks, public technical colleges/universities, health care facilities, and grocery stores. Regional destinations include the Milwaukee Regional Medical Center (MRMC), Milwaukee Mitchell International Airport, and downtown Milwaukee.*

[8] *A reasonable timeframe is defined as 30 minutes for the major activity centers, the MRMC, and the Milwaukee Mitchell International Airport, and as 60 minutes for downtown Milwaukee.*

2.2.4 National Performance Measures and Performance Measure Targets

The Moving Ahead for Progress in the 21st Century (MAP-21), enacted in 2012, created a framework for a national performance management approach to transportation decision-making on investments with Federal highway and transit funding. In implementing the performance management approach, the FHWA and FTA have developed specific highway and transit performance measures relating to transit asset management and safety, highway safety, National Highway System condition and performance, freight performance, and congestion mitigation and air-quality management. Per Federal requirements, the Commission, working with the State and transit operators, have established targets for the performance measures, and have reported them in the regional transportation plan and transportation improvement program.

Many of the established national performance measures directly or indirectly relate to congestion management. The national performance measures related to congestion management are described in more detail below.

- **Congestion Mitigation and Air-Quality Performance Measures** – As part of the national performance management framework, FHWA developed three CMAQ-related performance measures: 1) annual peak hour excessive delay per capita (PHED), 2) the percent of travel occurring via non-single occupancy vehicles (non-SOV), and 3) the on-road mobile source (i.e., vehicle) emissions. Per the regulations, the geographic area utilized for the PHED and non-SOV performance measures is the Milwaukee urbanized area and the area utilized for the emissions-based measure is the MPA.

- **Highway Safety Performance Measures** – FHWA has developed five safety-related performance measures that are to be established annually for all public roadways: 1) the number of fatalities, 2) the rate of fatalities per one hundred million vehicle miles traveled (HMVMT), 3) number of serious injuries, 4) the rate of serious injuries per HMVMT, and 5) the number of non-motorized fatalities and serious injuries. The targets are set for each of the five performance measures as a rolling five-year average ending the year after the reporting year.

- **NHS System Reliability and Freight Reliability Performance Measures** – As part of the national performance management framework, FHWA developed three reliability-based performance measures: 1) percent of the Interstate system that is reliable, 2) percent of the non-Interstate NHS that is reliable, and 3) freight reliability ratio. Travel time data from the National Performance Management Research Data Set (NPMRDS) are used to calculate these performance measures.

3. RECOMMENDATION OF STRATEGIES TO ADDRESS EXISTING AND FUTURE TRAFFIC CONGESTION

This section documents the process for developing congestion management actions for the Southeastern Wisconsin Region. As described in more detail below, these recommended actions and the assessment of their expected impacts are developed in conjunction with and taking into consideration land use and transportation recommendations identified as part of the regional transportation planning process.

3.1 Development, Evaluation, and Recommendation of Actions to Address Existing and Probable Future Traffic Congestion

The process for developing, evaluating, and recommending actions to address existing and estimated future traffic congestion is explicitly considered in the preparation of the regional land use and transportation plan. The regional land use and transportation plan undergoes a major reevaluation and update approximately every 10 years, and an interim review and update every four years. Recognizing the cyclical nature of regional land use and transportation planning, the development of the major update to the regional land use and transportation plan is built upon the previous plan. The existing set of congestion management-related recommended actions is fully documented in the current regional land use and transportation plan.

The development, evaluation, and recommendation of regional plan recommendations, including actions to address existing and estimated future traffic volumes, is guided by the Advisory Committee on Regional Transportation Planning. Additionally, the Commission consults with the Region's transit system operators

and transportation system operations professionals, through task forces, at key junctures during the development of the congestion management process and regional transportation planning process to identify existing transportation systems operations actions and systems and to identify alternative operations actions and systems to be considered for inclusion in the plan. The transportation system operations-related task force includes: Highway Commissioners and Directors of Public Works from the Region's seven counties; City Engineers and Directors of Public Works from selected representative municipalities; the Wisconsin Department of Transportation State Traffic Engineer; the Wisconsin Department of Transportation's Traffic Incident Management Enhancement (TIME) Program Manager; and the Wisconsin Department of Transportation's Southeast Region Systems Operations Manager.

3.1.1 Development of Alternative Congestion Management Actions

The development of recommended congestion management actions begins with the development of alternative regional transportation plans that include measures to address existing and future transportation deficiencies and needs, including congestion management strategies to address existing and estimated future congestion, that were identified through evaluation of the existing transportation system. For the development of each alternative plan, consideration is first given to public transit, bicycle and pedestrian, travel demand management, and transportation systems management improvements and expansion to meet future traffic demand derived from the regional land use plan. The level of improvement and expansion is determined based on plan objectives, input from the public and local and State officials, and the recommended land use pattern that the alternative systems would serve. For each alternative, these four transportation elements are quantitatively tested and evaluated with respect to their travel impacts and potential to reduce congestion prior to any consideration of arterial street and highway system improvement and expansion. Actions under the public transit, bicycle and pedestrian, travel demand management, and transportation systems management elements have historically included:

- **Public Transit Element** – The public transit element typically includes significant improvement and expansion of public transit in Southeastern Wisconsin, including development of rapid and express transit systems, improvement of existing local bus service, and the integration of local bus service with the recommended rapid and express transit services. Such recommendations in Commission regional transportation plans have historically, and continue to, result in about a doubling of existing service levels.

- **Bicycle and Pedestrian Facility Element** – The bicycle and pedestrian facility element typically includes measures intended to promote safe accommodation of bicycle and pedestrian travel and encourage bicycle and pedestrian travel as an alternative to personal vehicle travel. Specifically, this element typically includes the consideration of providing accommodation for bicycle travel along each segment of arterial street and highway through bicycle lanes, widened outside travel lanes, widened shoulders, or separate bicycle paths. In addition, the element includes the provision of a system of off-street bicycle paths between the urbanized areas and the cities and villages within the Region with a population of 5,000 or more located outside the urbanized areas.

- **Transportation Systems Management Element** – The transportation systems management (TSM) element typically includes measures intended to manage and operate existing transportation facilities to their maximum carrying capacity and travel efficiency, including: freeway traffic management, surface arterial street and highway traffic management, and major activity center parking management and guidance.

    - **Freeway Traffic Management** – This group of TSM measures seeks to improve the operation and management of the regional freeway system. It includes operational control, advisory information, and incident management measures, as well as a traffic operations center supporting these measures. Essential to achieving freeway operational control, advisory information, and incident management is the Wisconsin Department of Transportation (WisDOT) Traffic Management Center (TMC) in the City of Milwaukee. At the TMC all freeway segments in the Milwaukee area are monitored, freeway operational control and advisory information is determined, and incident management detection and confirmation is conducted. The TMC is important to the safe and efficient operation of the regional freeway system and is in operation 365 days a year, 24 hours a day.

- **Surface Arterial Street and Highway Traffic Management** – This group of (TSM) measures seeks to improve the operation and management of the regional surface arterial street and highway network, and includes improved traffic signal coordination, intersection traffic engineering improvements, curb lane parking restrictions, access management, and advisory information.

- **Travel Demand Management Element** – Travel demand management (TDM) measures are intended to reduce personal and vehicular travel or to shift such travel to alternative times and routes, allowing for more efficient use of the existing capacity of the transportation system. Such measures can include the provision of high-occupancy vehicle preferential treatment, park-ride lots, transit pricing, personal vehicle pricing, travel demand management promotion, transit information and marketing, and detailed site-specific neighborhood and major activity center land use plans.

- **Arterial Street and Highway Element** – Following the development of potential measures from the other four elements, arterial street and highway system improvement and expansion is then considered to address the residual highway traffic volume and traffic congestion that is not expected to be alleviated by the plan's other elements of travel demand management, transportation systems management, bicycle and pedestrian actions, and public transit improvement and expansion. In recent plan updates, the potential improvement and expansion has represented less than 10 percent of the total centerline-miles and lane-miles of the arterial system.

3.1.2 Evaluation of Alternative Congestion Management Actions

Following their development, alternative regional transportation plans are then evaluated and compared—including alternatives with and without highway improvements—based on their ability to achieve regional plan objectives, including the congestion management objectives. The evaluation is conducted through the use of performance measures that include, in part, the congestion management performance measures identified in Section 2. In addition, alternative plans are compared to two conditions—the existing condition and a trend alternative plan, which represents the continuation of historical land use development and transportation system improvement and expansion. The alternatives and the results of their evaluation are then presented to, and refined by, the Advisory Committee, along with the transportation systems management task force. The alternative plans and their evaluation are then presented to the public for review and comment.

3.1.3 Recommended Congestion Management Actions

A preliminary recommended regional transportation and congestion management plan is then developed based on the results of the evaluation and input from the public and local officials. The preliminary recommended plan is again evaluated with the performance measures and compared to existing conditions and the trend alternative. The preliminary recommended plan is presented to, and refined by, the Advisory Committee, along with the transportation systems management task force. The plan and its evaluation are then presented to the public for review and comment. Based on input from the public and local and State officials, adjustments are made to the preliminary recommended plan to develop the final recommended regional transportation and congestion management plan. The final plan is then considered for approval by the Advisory Committee and the Commission.

4. IMPLEMENTING AND EVALUATING CONGESTION MANAGEMENT STRATEGIES

This section documents the process for implementing and evaluating the effectiveness of the recommended congestion management actions identified in the regional land use and transportation plan, as described in Section 3. This process includes additional planning efforts that are recommended to aid in the implementation of the congestion management actions, as well as identification of potential funding gaps and the resulting fiscally-constrained transportation system (FCTS). This section also documents the process for monitoring and reevaluating the regional and national congestion management-related performance measures. This section also documents the regional transportation operations plan (RTOP), a short-range plan developed as a component of the Region's congestion management process that lists the transportation systems management actions, or transportation systems operations measures, that are recommended for priority implementation over a short-term period.

4.1 Responsibilities for Implementation of Regional Land Use and Transportation Plan Recommendations

The Commission, by State law, is an advisory agency, and implementation of the regional land use and transportation plan, including recommended congestion management actions, is dependent upon the actions taken by local, county, areawide, State, and Federal agencies of government. There are several agencies whose actions affect the implementation of the recommended regional land use and transportation plan and whose full cooperation in plan implementation is essential, including: Local Plan Commissions; Local Boards of Public Works; Highway, Transit, and Public Works Committees of the County Boards; Cooperative Contract Commissions; the Regional Planning Commission; the Wisconsin Department of Transportation; the Wisconsin Department of Natural Resources; the University of Wisconsin-Extension; the U.S. Department of Transportation, including FHWA and FTA; and the U.S. Environmental Protection Agency, but may also include private interests as well.

Implementation responsibilities, schedule, and possible funding resources for recommended congestion management strategies are identified in the regional land use and transportation plan, and are reviewed and updated with each major reevaluation and extension of design year of the plan, and every four years with each interim review and reappraisal of the plan. As part of plan implementation, more detailed planning will be conducted prior to the programming of certain congestion management elements of the regional land use and transportation plan. This includes more detailed State, county, and local planning efforts required to refine the basic transit, TSM, and highway improvements recommended in the plan.

With respect to short-term implementation, the RTOP contains details regarding implementation responsibilities, schedule, and funding sources for TSM actions over a five-year period. More detail on the RTOP is provided in subsection 4.5.

4.2 Financial Analysis of the Regional Land Use and Transportation Plan

In each regional land use and transportation plan and interim update, the Commission prepares an estimate of the expected total costs to implement the transportation component of the plan, including the recommendations that address congestion in the Region, and compares it to an estimate of the reasonably expected revenues that would be available to fund the transportation component of the plan. Comparing cost and revenue forecasts illustrates potential funding gaps that would need to be addressed to fully implement the transportation element of the plan. Potential revenue sources that could be explored to fill the gaps are identified. The transportation component of the regional land use and transportation plan is required by the Federal government to be funded with reasonably expected revenues. If funding gaps exist for the desired improvements of a particular transportation element, those improvements would not meet Federal requirements for fiscal constraint, necessitating identification of a FCTS for Southeastern Wisconsin. Historically the costs of bicycle and pedestrian, TDM, and TSM recommendations in the regional land use and transportation plan have been primarily included in the costs for arterial streets and highways, and typically represent a small fraction of the cost to reconstruct an arterial facility.

4.3 Monitoring of Regional Land Use and Transportation Plan Forecasts, Implementation, and Performance

The Commission also has historically monitored the various performance metrics related to socioeconomic characteristics, development pattern, and transportation system performance for Southeastern Wisconsin on a near annual frequency, though the timing of the monitoring of plan forecasts, implementation, and performance has been based on the availability of data to permit this monitoring. This monitoring has been documented in the performance section of the Commission's annual report. As the interim and major reviews and updates are conducted approximately on the 4- and 10-year cycles, this information is used to monitor the accuracy of the forecasts that underlie its regional land use and transportation plan; the progress made in implementation of the plan, including plan recommendations pertaining to congestion management; and its forecasts of transportation system performance. Monitoring these items allows Commission staff to assess whether the forecasts and the facility plans designed to accommodate forecast conditions remain valid. This information is provided to the Advisory Committees and public as part of the plan update process and is documented within the plan or interim update.

The data sets collected for the monitoring of congestion and safety allow for the comparison of historical trends in traffic congestion and traffic safety on the arterial street and highway system in Southeastern Wisconsin. Over time these trends will allow the Commission to develop an assessment of the effectiveness of recommended congestion management actions that have been implemented. In addition, during each regional land use and transportation plan update, a few implemented recommendations—including those projects funded through FHWA CMAQ funding—will be selected for evaluation of their specific impact on transportation system congestion and performance in the Region. It should be noted that no one project can be expected to have a significant impact on congestion, rather it is many projects implemented over time and within the context of a comprehensive multimodal plan, like the Commission's plans, that the overall benefits of the congestion management measures will be realized, resulting in a more efficient, safe, and cost-effective transportation system.

4.4 Monitoring of National Performance Measures and Targets

As described in Section 2, the Commission has developed targets for the National performance measures developed by FHWA and FTA, per Federal requirements. These performance measures will be monitored over time to determine progress in achieving the established targets. In addition, the National performance measures directly or indirectly related to congestion management (as identified in Section 2), will be monitored to determine the effectiveness of implementation of congestion management measures. These performance measures will be reported and monitored annually in the transportation system performance section of the Commission's Annual Report and on its website, every four years as part of the interim regional plan updates, and as part of the major regional land use and transportation plan updates.

4.5 Regional Transportation Operations Plan (RTOP)

The RTOP is a short-range plan listing the transportation systems operations measures, which are recommended for implementation over a near-term, five-year period. The RTOP is prepared by Commission staff under the guidance of the Commission's Advisory Committee on Regional Transportation Planning. The Commission staff uses the RTOP to prioritize projects for the federal funds where the Commission is involved in project selection.

The RTOP summarizes the TSM element of the regional land use and transportation plan, which includes measures intended to manage and operate existing transportation facilities to their maximum carrying capacity and travel efficiency, including: freeway traffic management, surface arterial street and highway traffic management, and major activity center parking management and guidance. The RTOP also describes the cooperation and coordination between the transportation agencies and operators in the Region, and coordination between the components of the regional transportation system, necessary to improve the overall operation of the regional transportation system.

The RTOP documents the process used to develop a list of TSM projects in Southeastern Wisconsin prioritized for implementation during a near-term, five-year period. This process includes the Commission requesting each County, City, Village, and Town in the Region and WisDOT to identify candidate projects for the five-year period to be evaluated, and prioritized, particularly with respect to FHWA CMAQ and Surface Transportation Block Grant (STBG) funding. The candidate projects are then categorized, evaluated, and prioritized for implementation as part of upcoming Federal transportation program funding cycles.

5. SUMMARY

The CMP is intended to document the land use and transportation planning process used by SEWRPC, which has long been designed to incorporate congestion management into the development of plan recommendations. The objectives and performance measures developed as part of the regional transportation planning process have long included objectives and performance measures related to congestion management. Similarly, recommended congestion management actions and the assessment of their expected impacts has also long been included in the regional transportation planning process, and the development of these actions follows the development of objectives and performance measures and is done in conjunction with the development of land use and transportation recommendations. Once land use and transportation recommendations are developed, the regional transportation planning process also identifies a process for implementing and evaluating the effectiveness of the recommended congestion management

actions. This includes identifying planning efforts that would aid in the implementation of the identified congestion management actions, as well as identifying potential funding gaps and the resulting fiscally-constrained transportation system (FCTS). These objectives, performance measures, recommendations, and implementation process are reviewed and refined as part of the development of updates to the regional transportation plan, which occurs approximately every ten years for major updates and every four years for interim review and updates. Monitoring of the associated data and reevaluation of the targets associated with the regional and national congestion management-related performance measures also occurs in an ongoing fashion.