

CONGESTION MANAGEMENT PROCESS

ST. LOUIS REGION

Congestion Management Process

Federal Regulations

- The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy.....

Congestion Management Process

Federal Regulations

- The development of a congestion management process should result in **multimodal system performance measures and strategies** that can be reflected in the Metropolitan Transportation Plan and the TIP

Congestion Management Process Shall Include:

- Methods to **monitor and evaluate** the performance of the multimodal transportation system
- Definition of **congestion management objectives** and performance measures
- Identification of the **causes of recurring and non-recurring congestion**, identify and **evaluate alternative strategies**
- Establishment of a coordinated program for **data collection and system performance monitoring** to define the extent and duration of congestion

Congestion Management Process Shall Include:

- Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies such as:
 - Demand management measures
 - Traffic operational improvements
 - Public transportation improvements
 - ITS technologies as related to the regional ITS architecture
 - Where necessary, additional system capacity

Congestion Management Process Shall Include:

- Identification of an **implementation schedule, implementation responsibilities, and possible funding sources for each strategy**
- Implementation of a process for **periodic assessment of the effectiveness of implemented strategies**

TMA Non-attainment Area Requirements

- Federal funds may not be programmed for any project in a TMA designated as a non-attainment area that will result a significant increase in the carrying capacity for SOVs (*i.e.* a new general purpose highway on a new location or adding general purpose lanes, with the exception of safety improvements or the elimination of bottlenecks), **unless the project is addressed through a congestion management process**

TMA Non-attainment Area Requirements

- In TMAs designated as non-attainment for ozone or carbon monoxide, the congestion management process **shall provide an appropriate analysis of reasonable (including multimodal) travel demand reduction and operational management strategies for the corridor** in which a project that will result in a significant increase in capacity for SOVs is proposed with the use of federal funds

So, what is a Congestion Management Process (CMP)?

- It is a systematic and regionally-accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance and assesses alternative strategies for congestion management that meet state and local needs. The CMP is intended to move these congestion management strategies into the funding and implementation stages.

So, What Does It Do?

- It Provides:
 - A Structured Process for Analyzing Congestion Issues
 - An Objectives-Driven, Performance-based Approach
 - Increased Collaboration and Coordination
 - More Effective Resource Allocation
 - Linkage to Project Development and Environmental Review

CMP Process Model

- Built on Eight Fundamental Components
 - Define System/Network of Interest
 - Develop Congestion Management Objectives
 - Develop Multimodal Performance Measures
 - Institute System Performance Monitoring Plan
 - Analyze Congestion Problems and Needs
 - Identify/Evaluate Strategies
 - Implement Selected Strategies/Manage System
 - Monitor Strategy Effectiveness

System/Network of Interest

- Interstate Highways and Regional Freeway and Expressway System monitored by the regional ITS System
- Principal regional arterial system monitored by the regional ITS System, along with other corridors that have high volumes of traffic and consistent congestion impacts as identified in the regional travel demand model
- All Mississippi and Missouri River bridges and approaches on the above identified routes
- Metrolink light rail transit line and principal bus arterial routes

Congestion Management Objectives

- Reduce Congestion on the Regional Transportation System
- Improve Transportation System Reliability
- Increase Multimodal Transportation Access and Choices on the Regional Transportation System.
- Identify and Mitigate Regional Transportation System Bottlenecks

Multimodal Performance Measures

- Regional Freeway Network
 - Average Speed Index
 - Average Speed
 - Incident Response Time
 - Number of Incidents
- Principal Arterials
 - Travel Time Index
 - V/C Ratio

Multimodal Performance Measures

- Transit
 - Passenger Boardings
 - Passenger Riders
 - On Time Performance

Collect Data/Monitor System Performance

- Significant Data Collection and System Monitoring Already Exist
 - MoDOT “Gateway Guide” ITS System
 - IDOT has real time monitoring of Freeways
 - St. Louis City and County Arterial Management Systems
 - St. Charles County installing Arterial Management System
 - METRO data collection and system monitoring efforts

Analyze Congestion Problems & Needs

- MoDOT publishes “St. Louis Regional Mobility Report”
 - Analyzes mobility on MoDOT system each month
 - Used as a tool to identify needs
- EWGCOG will perform a yearly analysis of regional system congestion and needs
- EWGCOG will publish a comprehensive report of the status of congestion and needs as part the development of each Regional Transportation Plan

Identify & Assess CMP Strategies

- Many congestion mitigation strategies are currently in use in the region including:
 - Maintenance & Operations
 - Demand Management
 - Public Transportation
 - Road Capacity
- Existing strategies will continue as part of the regional CMP
- CMC will work to support, enhance and expand strategies where appropriate

Program & Implement CMP Strategies

- The St. Louis region has been active in implementing congestion management strategies over the last decade
- Regional Transportation Plan includes factors that support CMP objectives in its project prioritization criteria
- Transportation Improvement Program includes factors in project rating criteria that support CMP objectives
- Congestion Mitigation and Air Quality (CMAQ) projects are used to support and implement CMP strategies
- CMP will result in a stronger regional focus on congestion

Evaluate CMP Strategies

- EWGCOG Regional Travel Demand Model provides a system level analysis of congestion
- MoDOT's Regional Mobility Report evaluates performance of system corridors each month
- Regional Mobility Report is also use to evaluate the impact of specific projects or programs
- CMP will coordinate strategy evaluation efforts and provide consolidated regional reports on evaluation results

Framework for Coordination

- CMC Continues to meet regularly
 - Monitors implementation and ongoing performance of the CMP
 - Reviews reports on the status of congestion in the region
 - Informs EWG, local jurisdictions and transportation agencies in the region of the state of congestion in the region and of potential solutions
 - Promotes regional coordination of inter-jurisdictional arterial operations
 - Makes recommendations on implementation of congestion mitigation strategies
 - Makes recommendations for updates to CMP objectives and performance measures
 - Coordinates data collection and regional data sharing to support CMP