



MEMORANDUM

TO: Southwest Washington Regional Transportation Council Board of Directors
FROM: Dean Lookingbill, Transportation Director
DATE: June 25, 2013
SUBJECT: Congestion Management Process, 2012 Overview

AT A GLANCE

The purpose of this memorandum is to provide an overview of the initial data for the 2012 Congestion Management Process. The Congestion Management Process is a federal planning requirement. The Congestion Management Process provides for the effective management and operation of the transportation system. Staff will seek endorsement of the findings from the 2012 Monitoring Report at the August 6, 2013 RTC Board meeting.

BACKGROUND

The Congestion Management Process (CMP) is a federal planning requirement of the 2005 SAFETEA-LU transportation authorization bill. All metropolitan transportation planning organizations with a population of over 200,000 must have a process for managing congestion.

The purpose of the CMP is to apply strategies that can improve transportation system performance and reliability by reducing congestion. The data element of the CMP provides information on transportation system performance. The strategy chapter identifies potential strategies to address congestion.

The purpose of this memorandum is to provide an overview of the initial data for the 2012 Congestion Management Process. The full 2012 Congestion Monitoring Report will be brought to the August RTC Board for endorsement.

CONGESTION MANAGEMENT PROCESS

The RTC CMP is integrated into the overall regional transportation planning and project programming process. The CMP features a process to consider congestion management strategies in relation to transportation needs identified in capital facility plans. Identified congestion needs are then incorporated into the Metropolitan Transportation Plan and are eventually programmed through the Metropolitan Transportation Improvement Program.

2012 MONITORING REPORT

The 2012 Report includes transportation system performance measures that address volume, capacity, speed, occupancy, safety, and other multimodal performance measures. When tracked over time, performance measures provide quantitative information to decision makers. When viewed collectively, these performance measures provide a more comprehensive view of the needs of the transportation system.

At the July RTC Board meeting, RTC staff will provide an overview of changes to the report, key corridor findings, and areas of concern.

Report Changes

In an effort to keep the report up to date and relevant, the 2012 report includes the following revisions:

- Reformatting of the Report to a more reader-friendly, new look.
- Clarification of text.
- Expansion of Chapter 3 to better describe applicable strategies.

Attached to this memorandum is a draft copy of Chapter 1, which reflects the new look of the 2012 Monitoring Report.

INITIAL FINDINGS

Capacity Ratio

The capacity ratio provides an indication of how well the transportation facility carries existing traffic volumes. The higher the ratio, the more traffic congestion a driver is likely to experience. The five highest PM peak volume to capacity ratio corridors include:

1. 18th Street, 112th Av. to 162nd Av. - 1.01 v/c
2. SR-14, I-205 to 164th Av. - 1.00 v/c
3. I-205, Airport Way to SR-500 – 0.93 v/c
4. Fourth Plain, SR-503 to 162nd Av. – 0.92 v/c
5. I-5, Jantzen Beach to Main St. – 0.90 v/c

When considering a shorter segment, the data can focus in on the locations where facilities carry traffic volumes in excess of roadway capacity. The attached map shows the areas of concern with volume to capacity issues in the PM peak period.

Travel Time

Travel time along arterials is directly connected to delay at signalized intersections. Better progression and coordination between signals will improve overall travel time and improve safety. Slow corridor travel time is an indicator of congestion. To analyze travel time, the CMP Report looks at speed as percent of speed limit and intersection delay for the through movement, to identify areas with congestion related to slow travel time.

Speed as Percent of Speed Limit: The five lowest PM peak hour speed corridors compared to posted speed limit include the following:

1. 112th Av., Mill Plain to SR-500 – 44%
2. Andresen Rd., Mill Plain to SR-500 – 46%
3. Fourth Plain, SR-503 to 162nd Av. – 53%
4. Mill Plain, I-205 to 164th Av. – 54%
5. Highway 99, I-5/Main St. to 134th St. – 54%

Intersection Delay: The five longest average PM peak delays are for the following directions at the following location:

1. Fourth Plain/SR-500/SR-503 – 153 seconds for Northbound traffic
2. Fourth Plain/Andresen – 147 seconds for Northbound traffic
3. NE 65th St./SR-503 – 102 seconds for Northbound traffic
4. Fourth Plain/Ft. Vancouver – 101 seconds for Northbound traffic
5. Padden Parkway/Andresen – 98 seconds for Northbound traffic

The attached map shows delay at intersections for through movement with an average delay time of greater than 45 seconds. With the implementation of signal timing improvements, the number of intersections that are displayed on this map have decreased since 2010.

Attachment: V/C Ratio Map and Intersection Delay Map

Areas of Concern: V/C Ratio 2012 PM Peak

 Concern: PM Ratio - Volume/Capacity > 0.9
 CMP Corridors

Congestion Management Report
Regional Transportation Council, June 2013



