



## STAFF REPORT/RESOLUTION

**TO:** Southwest Washington Regional Transportation Council Board of Directors  
**FROM:** Matt Ransom, Executive Director  
**DATE:** June 30, 2015   
**SUBJECT:** 2014 Congestion Management Process, Resolution 07-15-13

---

### AT A GLANCE - ACTION

*The RTC Board is being requested to endorse the Congestion Management Process 2014 Monitoring Report and its findings. The congestion management process is a federal planning requirement. The 2014 Monitoring Report meets the federal requirements by collecting and analyzing transportation system data, by providing information on regional transportation system performance measures, and by identifying potential strategies to help the region manage congestion.*

### INTRODUCTION

The purpose of this memorandum is to present the Congestion Management Process: 2014 Monitoring Report. The report includes a full discussion of the morning and evening peak period findings as well as additional system performance measures.

The Congestion Management Process (CMP) is a federal planning requirement for all metropolitan transportation planning organizations with a population of over 200,000. The CMP serves as the foundation for monitoring the regional transportation system.

The monitoring element of the congestion management process is designed as an informational tool to be used within the MPO transportation decision-making process. Overall, the Monitoring Report provides a summary assessment of the regional transportation system's operating conditions and deficiencies. Transportation projects which mitigate deficiencies are identified and implemented by local agencies and compete for federal funding through the regional project selection process.

The RTC Board was provided information on preliminary data at the May 2015 Board meeting. At the July meeting, RTC staff will provide an overview of the full report, including key findings and regional strategies. This presentation will focus on the information provided in the attached 2014 Congestion Management Process Summary Report.

### 2014 MONITORING REPORT

The 2014 Monitoring Report follows a similar format as previous years. In Chapter 1 the Congestion Management Process is introduced and its general process, network, and performance measures are described. Chapter 2 provides an analysis of the system performance measures on the CMP network. Chapter 3 identifies potential transportation strategies and

monitors the effectiveness of implemented strategies. New to the 2014 Monitoring Report is the Strategy Corridor Analysis beginning on page 54. This new section displays the linkage between transportation infrastructure improvements and corridor performance.

### **KEY FINDINGS**

With recent population and employment growth, congestion in the Clark County region now exceeds pre-recession levels, especially for bi-state travel. This growth is leading to congestion as drivers travel to work, school, and other activities. The 2014 Monitoring Report findings are that the region needs to continue to focus on operational improvements, select capacity improvements, and address strong demand for bi-state travel.

Overall, the Monitoring Report shows that the implementation of the Regional Transportation Plan (RTP) can address the corridor capacity needs over the next 20 years. This does not mean that congestion will not exist, but through the implementation of additional operational improvements and by addressing localized bottlenecks the region can manage congestion.

However, there is reason to express concern. In recent years, transportation revenues have not kept pace with inflation and the region has struggled to reach consensus on select priority transportation needs. These obstacles have led to deferred maintenance and transportation improvements, which will result in higher future costs. The region along with state and federal partners will need to work together to address these obstacles.

### **KEY STRATEGIES**

The information and data contained in the Congestion Management Report is used to identify appropriate congestion management strategies for the region. The following strategies have been identified through the Regional Transportation Plan (RTP), and could be implemented in the shorter-term horizon at lower cost:

- Transportation System Management and Operations (TSMO) strategies must be part of cost-effectively managing each corridor.
- Capacity should be selectively added where other strategies have been exhausted.
- The region must continue to work towards a long-term solution for bi-state travel needs. In the near-term, the region will need to implement additional Transportation System Management and Transportation Demand Management options to maximize the existing capacity.

### **POLICY IMPLICATION**

The federal planning requirements call for the development and implementation of a Congestion Management Process. The Board's endorsement of the CMP and its findings completes that program requirement. Further, the CMP's strategies are drawn from the region's Regional Transportation Plan (RTP) and will be implemented through the Transportation Improvement Program (TIP).

**BUDGET IMPLICATION**

The budget for the Congestion Management Process comes from federal Surface Transportation Program and local match funds. These funds are included in the annual adopted RTC Budget and Unified Planning Work Program.

**ACTION REQUESTED**

Adoption of Resolution 07-15-13, “2014 Congestion Management Process”

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_ 2015,  
by the Southwest Washington Regional Transportation Council.

SOUTHWEST WASHINGTON  
REGIONAL TRANSPORTATION COUNCIL

ATTEST:

\_\_\_\_\_  
Melissa Smith  
Chair of the Board

\_\_\_\_\_  
Matt Ransom  
Executive Director

Attachment: Congestion Management Process 2014 Monitoring Report  
2014 Congestion Management Process Summary Report

# 2014 Congestion Management Process Summary Report



## Introduction

Recent data confirms that the region's traffic is exceeding pre-recession travel levels and the transportation system is showing signs of stress. While it may be impossible to totally remove all congestion, congestion needs to be managed in order to provide a reliable transportation system and support economic vitality.

Southwest Washington Regional Transportation Council's (RTC's) federally required Congestion Management Process (CMP) is a regional program that analyzes travel delay characteristics and provides system performance information on major streets and state highways. It is a tool to be used within the transportation decision-making process.

The information and data contained in the congestion management process is used to identify transportation needs and encourages cost-effective strategies that complement major capital needs. Within the annual transportation funding program, prioritization is given to projects which address deficiencies identified through the CMP.

The purpose of this summary is to provide a snapshot of the region's most congested roadways and a quick look at some strategies to improve system performance.

## Key Findings

Clark County's population is growing and regional jobs are growing even faster. Clark County added 7,300 people and 14,400 jobs between 2010 and 2014, while the Portland region added 96,900 jobs during the same time period. Notably, the region had lost 70,000 jobs between 2008 and 2010. Clark County accounts for almost 12% of the region's total employment. This increase in population and employment has resulted in additional trips, especially during peak commute periods.

The Congestion Management Process shows that implementation of the 20-year Regional Transportation Plan (RTP) can largely address the corridor capacity needs over the next 20 years. The lack of transportation revenues and regional consensus is leading to deferred maintenance and infrastructure improvements. The deferral of these projects will result in higher future costs, and will make the implementation of the RTP more challenging.

In the near-term, the region will need to implement low cost system operation and management strategies where long-term improvements are delayed. There is an immediate need to implement additional low-cost strategies for the I-5 South Corridor to deal with bi-state travel congestion.



## Growth Summary

Measure	2008-2014
	Growth
Bridge Crossings	6.1%
Clark County Population	5.7%
Regional Employment	3.4%

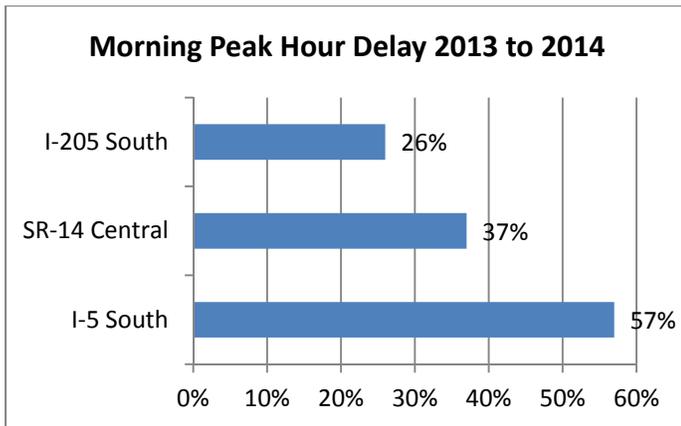
## Bi-State Traffic Growth

The major hot spot for regional congestion includes bi-state travel between Clark County and Oregon. The demand for bi-state travel has increased each year, except for a three year period during the recent recession (2006-2008). The following table shows historic growth in Columbia River bridge crossings since 1980:

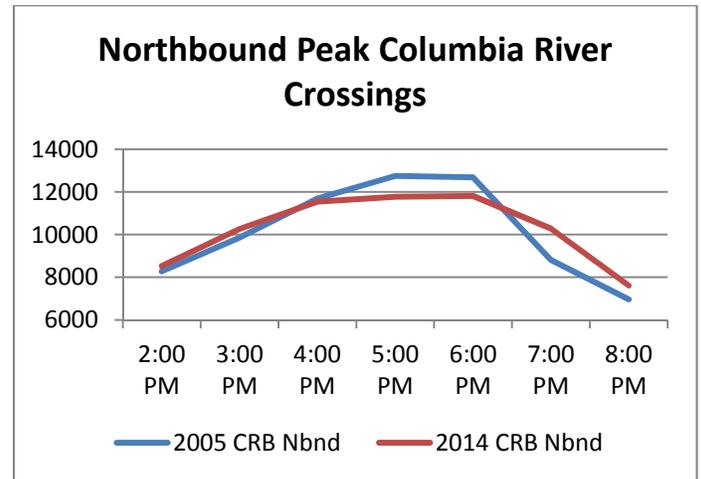
Year	I-5	I-205	Total
1980	108,600	N/A	108,600
1990	95,400	87,100	182,500
2000	126,900	132,100	259,000
2010	126,700	145,500	272,200
2014	132,600	152,700	284,300

## Bi-State Bridge Delay

During the morning commute, drivers are experiencing a significant increase in delay on I-5 South, I-205 South, and SR-14 immediately east of I-205. Delay represents the additional travel time experienced due to congestion.



With both bridges experiencing congestion, peak spreading is occurring. Peak spreading leads to a flattening and longer peak period as trips shift to periods immediately before and after the peak demand. The impact of congestion means that fewer vehicles cross the bridges in the peak two hours, while more vehicles cross the bridges during the peak six hour period.



## Transportation System Performance

Transportation system performance can be measured in several ways, especially when considering a multimodal transportation system. RTC's congestion management process includes performance measures related to volume, capacity, speed, occupancy, safety, trucks, and transit. When viewed collectively, these performance measures provide a more comprehensive view of the transportation needs within the region. This summary report includes a snapshot of only a few of the performance measures included in the full congestion report.



## Corridors: Volume to Capacity

The corridor capacity ratio is an aggregation of the volume/capacity ratios for the individual segments that make up a corridor. The capacity ratio provides an indication of how well the transportation facility carries the existing traffic volumes. The closer the ratio is to one, the worse the traffic congestion. A ratio above 0.90 is an indicator of significant congestion.

The five worst volume to capacity corridors are:

<b>1</b>	I-5, Main St. to Jantzen Beach (AM)	<b>&gt;1.00*</b>
<b>2</b>	18th St., 112th Ave. to 162nd Ave. (PM)	<b>1.00</b>
<b>3</b>	I-205, Padden Parkway to Airport Way (AM)	<b>0.90</b>
<b>4</b>	SR-14, 164 <sup>th</sup> Avenue to I-205 (AM)	<b>0.90</b>
<b>5</b>	Fourth Plain, 117 <sup>th</sup> Ave. to 162 <sup>nd</sup> Ave. (PM)	<b>0.90</b>

\* At the I-5 Bridge, traffic demand exceeds available capacity during the morning commute. The result is that fewer vehicles are able to get through the corridor.

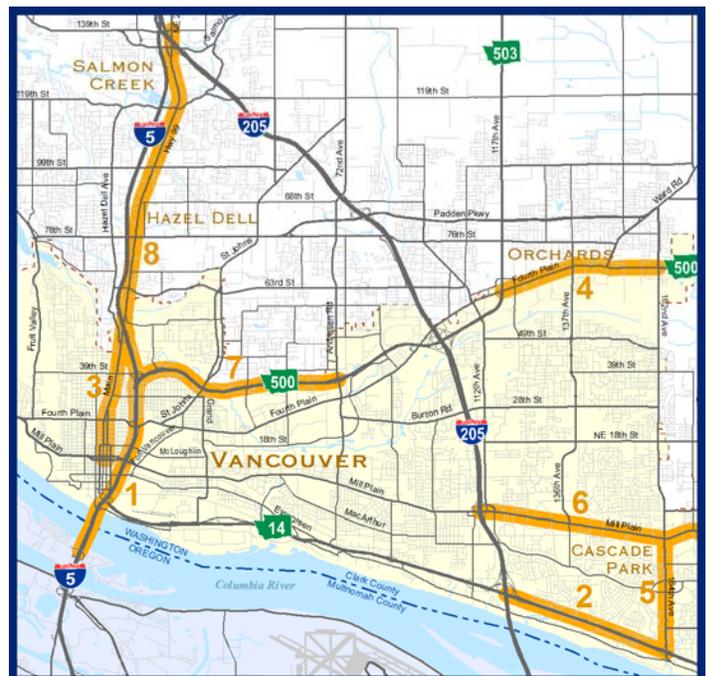


## Corridors: Lowest Speed Percentage

The level of speed in the corridor is ranked by comparing actual measured travel speed to the posted speed limit. The percentage along arterials is often directly connected to delay at signalized intersections. Improved progression and coordination between signals will improve overall travel time and safety. A travel speed lower than 60% of the posted speed limit is below average and is an indicator of delay.

The eight lowest speed percentage corridors are:

<b>1</b>	I-5, Main St. to Jantzen Beach (AM)	<b>22%</b>
<b>2</b>	SR-14, 164 <sup>th</sup> Av. to I-205 (AM)	<b>43%</b>
<b>3</b>	Main Street, Ross St. to Mill Plain (AM)	<b>48%</b>
<b>4</b>	Fourth Plain, 117 <sup>th</sup> Av. to 162 <sup>nd</sup> Av. (PM)	<b>49%</b>
<b>5</b>	164 <sup>th</sup> Avenue, SR-14 to Mill Plain (PM)	<b>51%</b>
<b>6</b>	Mill Plain, I-205 to 192 <sup>nd</sup> Av. (PM)	<b>54%</b>
<b>7</b>	SR-500, I-5 to Andresen Rd. (PM)	<b>54%</b>
<b>8</b>	Highway 99, Ross St. to 139 <sup>th</sup> St. (PM)	<b>56%</b>



## Corridors: Transit Ridership

C-TRAN uses an automated ridership collection system on their vehicles to collect ridership data. Transit ridership represents the number of passengers in the evening peak direction at a specific location within each corridor. Transit ridership is often reflective of access to transit including frequency of service and bus capacity. Transit ridership in a corridor increases the person carrying capacity of a corridor.

The five highest transit ridership corridors are:

<b>1</b>	I-5, Jantzen Beach to Main St. (PM)	<b>1,532</b>
<b>2</b>	Fourth Plain, I-5 to Andresen (PM)	<b>598</b>
<b>3</b>	I-5, Main St. to I-205 (PM)	<b>578</b>
<b>4</b>	I-205, SR-500 to Airport Way (AM)	<b>544</b>
<b>5</b>	SR-14, 164 <sup>th</sup> Av. to I-205 (AM)	<b>539</b>



## Key Regional Strategies

The information and data contained in the Congestion Management Process Report is used to identify appropriate congestion management strategies for the region. The following strategies have been identified through the Regional Transportation Plan (RTP):

- Transportation System Management and Operations (TSMO) strategies must be a part of cost-effectively managing each corridor.
- Capacity should be selectively added where other strategies have been exhausted.
- The region must continue to work towards a long-term solution for bi-state travel needs. In the near-term, the region will need to implement additional Transportation System Management and Transportation Demand Management options to maximize the existing capacity.

## Local Strategies

Because each roadway corridor has its own characteristics, congestion management efforts must be tailored to meet the needs of an individual roadway. Local agencies must employ a variety of strategies to effectively manage congestion. The CMP Toolbox, contained in the CMP Report, is a reference tool for the development of local strategies.

## Congestion Monitoring Report

The Congestion Management Process Monitoring Report includes a warehouse of transportation data and an analysis of transportation system performance. The data is translated into tables and maps that are contained in the full report. The full CMP report, including transit and other multimodal data, is available on RTC's website.

### For More Information

You can get more information on the Congestion Management Process by contacting the Regional Transportation Council at 360-397-6067 or by visiting the project website at <http://www.rtc.wa.gov/programs/cmp>.