



MEMORANDUM

TO: Southwest Washington Regional Transportation Council Board of Directors
FROM: Matt Ransom, Executive Director *MR*
DATE: April 28, 2015
SUBJECT: **Congestion Management Process - 2014 Initial Data**

ATA GLANCE

The purpose of this memorandum is to provide an overview of the initial data for the 2014 Congestion Management Process. The Congestion Management Process is a federal planning requirement. The Congestion Management Process provides data and analysis for the effective management and operation of the transportation system. Staff will seek endorsement of the findings from the 2014 Monitoring Report at the July 7, 2015 RTC Board meeting.

INTRODUCTION

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

The Congestion Management Process (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 transportation decision-making process. Within the annual TIP process, prioritization is given to projects which address CMP identified deficiencies. Overall, the CMP Monitoring Report provides a consolidated assessment of the regional transportation system's operating conditions and deficiencies. Transportation projects which correct deficiencies are implemented by local agencies and often funded in part through support provided by the regional TIP funding program.

The CMP monitoring program has established performance measures related to: volume, capacity, speed, occupancy, safety, trucks, and transit. When tracked over time, performance measures provide trend and statistical information to decision makers. When viewed collectively, these performance measures provide a more comprehensive view of the transportation needs within the region.

The purpose of this memorandum is to provide an overview of the initial data for the 2014 Congestion Management Process. The initial data was reviewed by RTAC at their April meeting, and the full 2014 Congestion Monitoring Report will be reviewed by RTAC prior to being brought to the July RTC Board for endorsement.

INITIAL FINDINGS

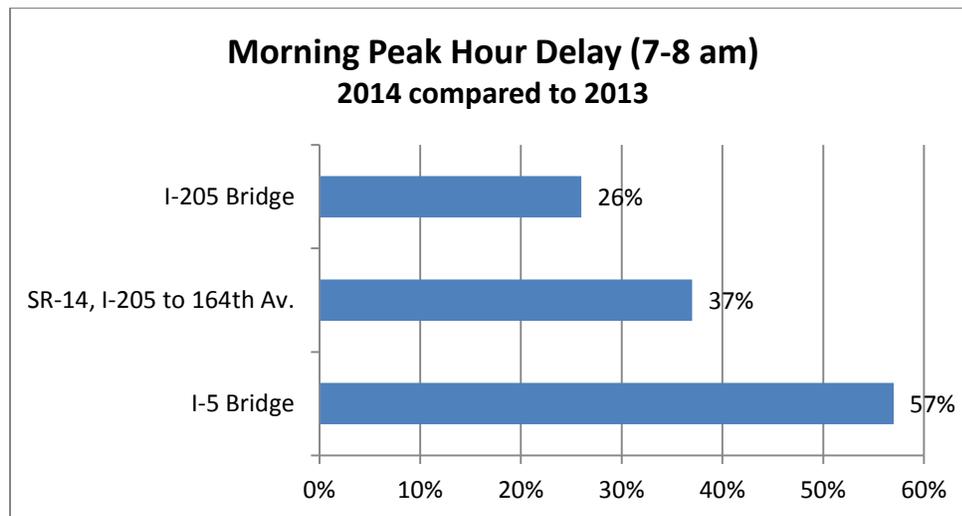
With growth in regional employment and population, more commute trips are being added to the regional transportation system. This has resulted in additional delay on the I-5 and I-205 Bridges between Washington and Oregon as these facilities exceed capacity. Despite the growth in trips, operational improvements were made to many of the major arterials to maintain travel movement.

Previous year data showed the need for traffic management and operational improvements along many of the major arterial streets. As a result, the region continues to focus on enhancing traffic operations to get the most out of the existing transportation system.

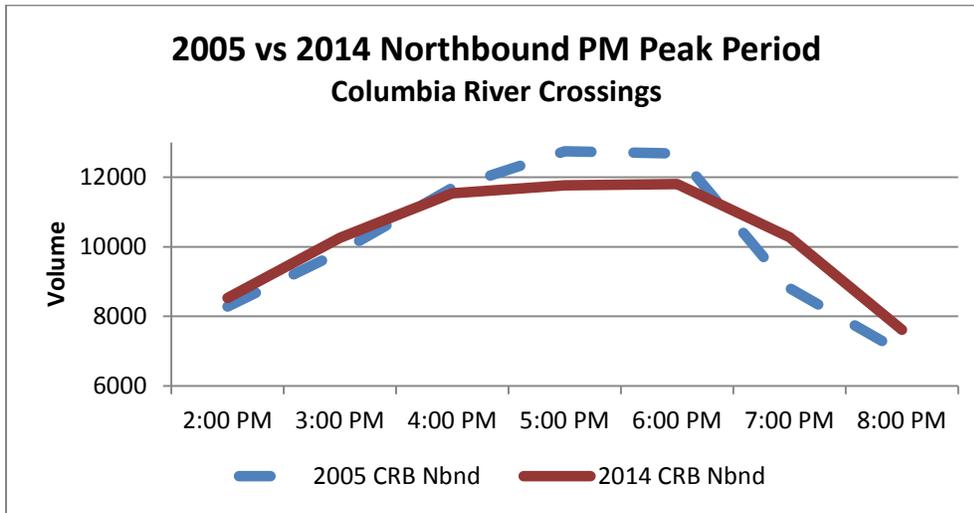
The initial 2014 data shows that the region needs to continue to focus on operational improvements, add select capacity improvements, and address strong demand for bi-state travel.

Demographic Information: In the four county metropolitan area (Clark, Clackamas, Multnomah, and Washington) approximately 100,000 jobs (10.7% increase) have been added within the metropolitan area since 2010. In Clark County 17,400 people (4.1% increase) were added to the County since 2010. This increase in employment and population has resulted in additional trips during the peak commute periods and across I-5 and I-205 bridges.

Columbia River Crossings: Both the I-5 and I-205 bridges set all time daily averages in 2014. People commuting in the morning peak on I-5 South, I-205 South, and SR-14 east of I-205 experienced the biggest increases in delay as congestion degraded. Between 2013 and 2014 delay is up 57% on I-5 between Main St. and Jantzen Beach, 26% on I-205 between SR-500 and Airport Way, and 37% on SR-14 between I-205 and 164th Avenue.



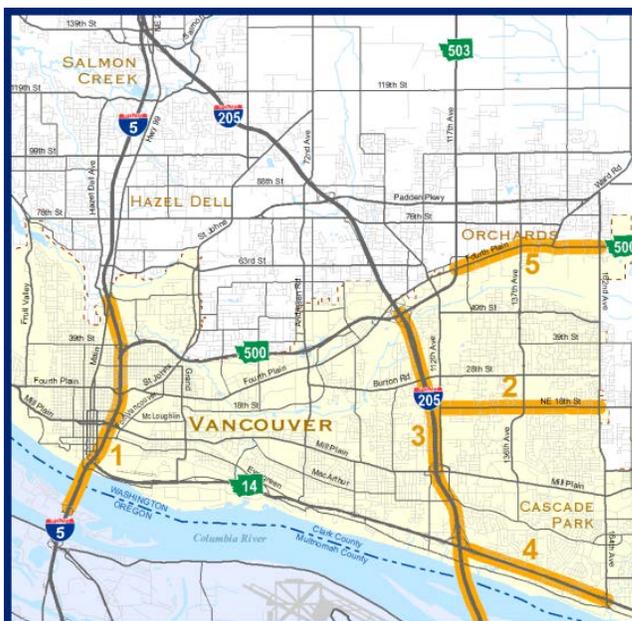
Between 2005 and 2014 (10 years) all day traffic volumes going across the Columbia River on I-5 and I-205 are up, while the morning southbound and evening northbound peak periods are down. Both Columbia River Bridges are congested four to seven hours a day and experience peak spreading. Peak spreading leads to a flattening and longer peak period as trips shift to periods immediately before and after the peak demand due to congestion impacts. The following chart displays the congestion spreading across the two Columbia River bridges. Although demand is up, turbulence in the corridor is leading to lower speed and throughput.



Corridor Capacity Ratio: The capacity ratio provides an indication of how well the transportation facility carries the existing traffic volumes. The higher the ratio, the more traffic congestion a driver is likely to experience. A facility with a corridor capacity above 0.90 will feel congested. Once a facility is beyond capacity, the corridor capacity ratio can appear to improve, but in reality the corridor is failing as increased delay results in fewer vehicles getting through the corridor. The I-5 corridor during the morning commute has reached saturation level resulting in slower speeds and fewer vehicle throughputs.

The five highest volume to capacity ratio corridors include:

1. I-5, Jantzen Beach to Main St. (AM) - > 1.00
2. 18th Street, 112th Av. To 162nd Av. (PM) - > 1.00
3. I-205, Airport Way to Padden Parkway (AM) - > 0.90
4. SR-14, I-205 to 164th Avenue (AM) - > 0.90
5. Fourth Plain, 117th Av. To 162nd Av. (PM) - > 0.90



Speed as Percent of Speed Limit: Speeds significantly lower than the posted speed limit is another measure of delay and congestion. Slow corridor travel speed will limit a facilities ability to carry planned traffic volumes. The top three low speed percentage corridors relate to the saturation of the corridors that lead to Portland and downtown Vancouver during the morning commute. The other five corridors relate to delay in the evening peak period. The lowest speed corridors when compared to posted speed limit include:

1. I-5, Main St. to Jantzen Beach (AM) – 22%
2. SR-14, 164th Av. to I-205 (AM) – 43%
3. Main St., Ross St. to Mill Plain (AM) – 48%
4. Fourth Plain, SR-503 to 162nd Av. (PM) – 49%
5. 164th Av., SR-14 to Mill Plain (PM) – 51%
6. Mill Plain, I-205 to 192nd Av. (PM) – 54%
7. SR-500, I-5 to Andresen Rd. (PM) – 54%
8. Highway 99, Ross St. to 139th St. (PM) – 56%



Transit: C-Tran recorded a total ridership of about 6.4 million boardings in 2014, down from about 6.5 million boardings in 2013. In 2014, C-VAN paratransit service for individuals with disabilities and Vanpool services for commuters showed slight gains. While all day C-TRAN ridership is down, the CMP data shows daily morning and evening period boardings as flat, with several of the corridors experiencing over 80% of the transit capacity being used.

C-TRAN data also shows the routes that cross the Columbia River with the lowest on-time performance, as congestion impacts transit travel time.

NEXT STEPS

- Complete the analysis of data.
- Coordinate results and action strategies with RTAC members.
- Finalize report and return to RTC Board with report in July.