

# SR 520 Bridge Tolling Update

**Craig J. Stone, PE**  
Toll Division Director

**Dave Dye**  
Deputy Secretary

**Paula Hammond**  
Secretary of Transportation

**Steve Reinmuth**  
Chief of Staff

# Why Tolling in Washington State?





14 bridges financed with bonds and paid for with tolls from the 1930s through the 1980s, including:

- Evergreen Point Bridge (SR 520 in Seattle)
- Two original Tacoma Narrows bridges
- Vancouver-Portland Bridge (I-5)
- Hood Canal Bridge (SR 104)
- First Lake Washington Bridge (I-90)
- Agate Pass (SR 305)
- Maple Street Bridge (Spokane)



# SR 520 program description

The SR 520 Bridge Replacement and HOV Program will replace the Portage Bay and Evergreen Point bridges and improve the existing roadway between I-5 in Seattle and SR 202 on the Eastside.

-  **I-5 to Medina: Bridge Replacement and HOV Project** – Replaces the SR 520 floating bridge and landings, and interchanges and roadway between I-5 and the eastern shore of Lake Washington.
-  **Medina to SR 202: Eastside Transit and HOV Project** – Completes and improves the transit and HOV system from Evergreen Point Road in Medina to the SR 202 interchange in Redmond.
-  **Lake Washington Congestion Management Project** – Implements tolls on the existing SR 520 floating bridge, and activates Smarter Highways features from I-5 to I-405.
-  **Pontoon Construction Project** – Advances pontoon construction to restore the floating section of the SR 520 bridge in the event of a catastrophic failure and to store those pontoons until needed.





# Lake Washington Congestion Management Program



**\$154.5 million federal grant to improve congestion in the SR 520 corridor:**

- Variable tolling on the SR 520 bridge
- Electronic travel time signs on I-405, SR 520 and SR 522 direct drivers to the best route across Lake Washington
- Smarter Highways on SR 520 and I-90 provide drivers with variable speed limits and real-time driver information
- King County and Sound Transit added more than 130 daily bus trips across the SR 520 bridge
- Vanpool and carpool programs encourage people to commute together

# Transit and Vanpool Update

- Increased SR 520 bus service more than 20 percent
  - 10 percent ridership increase since tolling started
- Vanpools in the SR 520 corridor have increased nearly 17 percent
- Park and ride usage is similar to pre-tolling with most lots remaining full



# Toll Operations

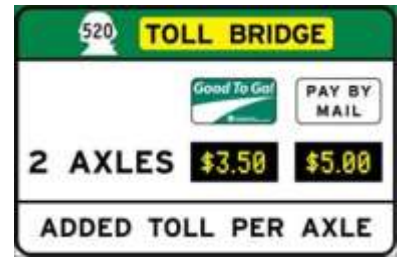
- Tolling implementation
  - On, December 29, 2011, WSDOT began tolling the existing SR 520 bridge.
- SR 520 tolling is open road, variably-priced, and all electronic
  - Allows all vehicles to travel through the corridor maintaining highway speeds
  - Variable pricing permits better traffic management during peak and off peak times
- Tolls are collected in both directions with two primary payment methods:
  - *Good To Go!* account:
    - Pass: always the lowest toll rate
    - Pay By Plate: 25 cent fee to cover extra processing costs
  - Photo toll:
    - Short Term Account: \$1.00 more than *Good To Go!* pass rate
    - Pay By Mail: \$1.50 more than *Good To Go!* pass rate

# Early Indicators of Toll Success

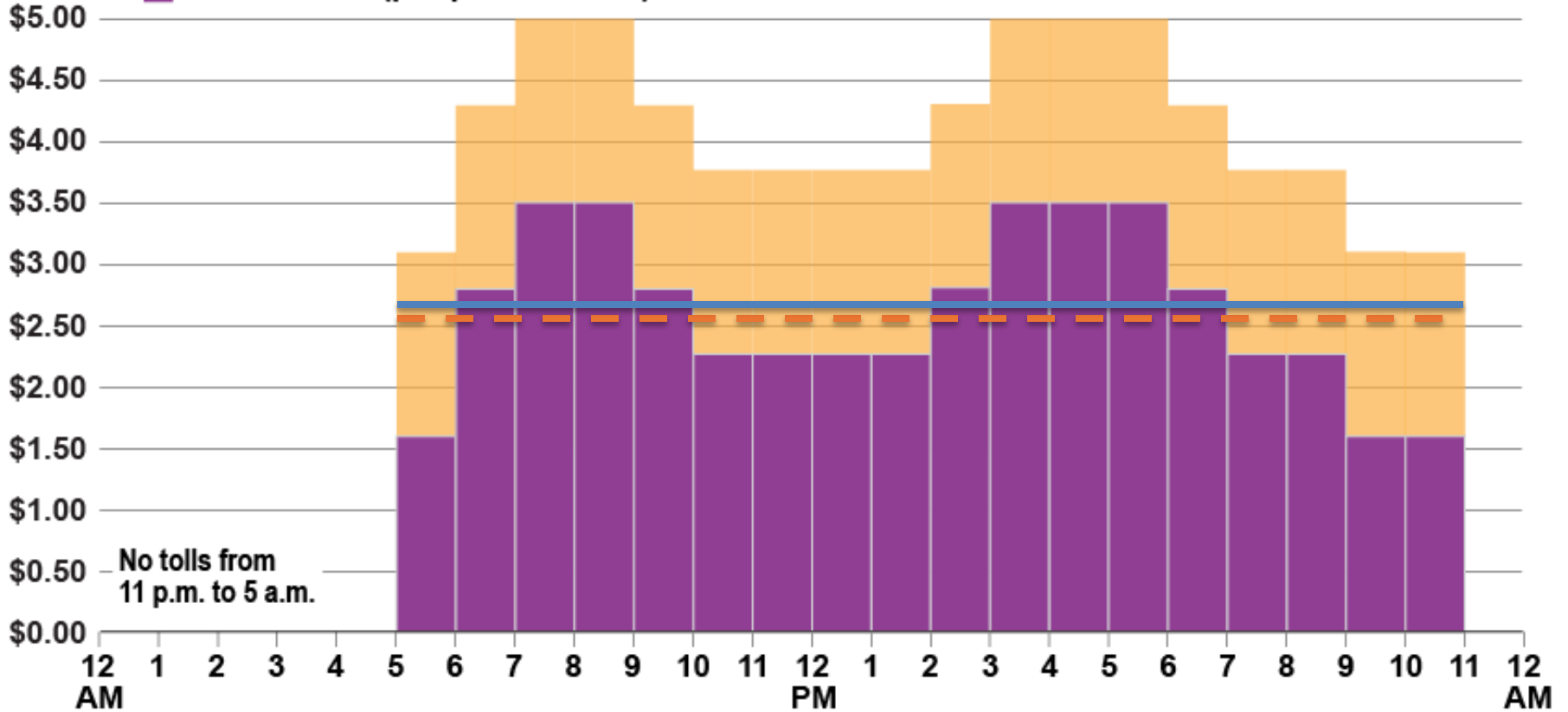


- *Good To Go!* accounts
  - Goal was 100,000 new accounts by day of opening
  - 225,000 new accounts opened between February 2011 and the end of February 2012
- Trips paid via *Good To Go!* accounts
  - Goal: Open with 50% of transactions via Good To Go! transponders
  - Forecast: 72% of transactions during the first year of tolling would be paid via *Good To Go!* accounts (pass or Pay By Plate)
  - Early indications:
    - Through February, approximately 79% of all toll trips were made by *Good To Go!* account users (72% pass, 7% Pay By Plate)
    - *Good To Go!* pass market share regularly exceeds 80% during weekday AM and PM peak hours.

# Weekday Toll Rates



- Pay-by-Mail toll rates
- Good To Go! (pre-paid account) toll rates
- Average Toll Rate
- 1963 Toll Rate Adjusted for Inflation

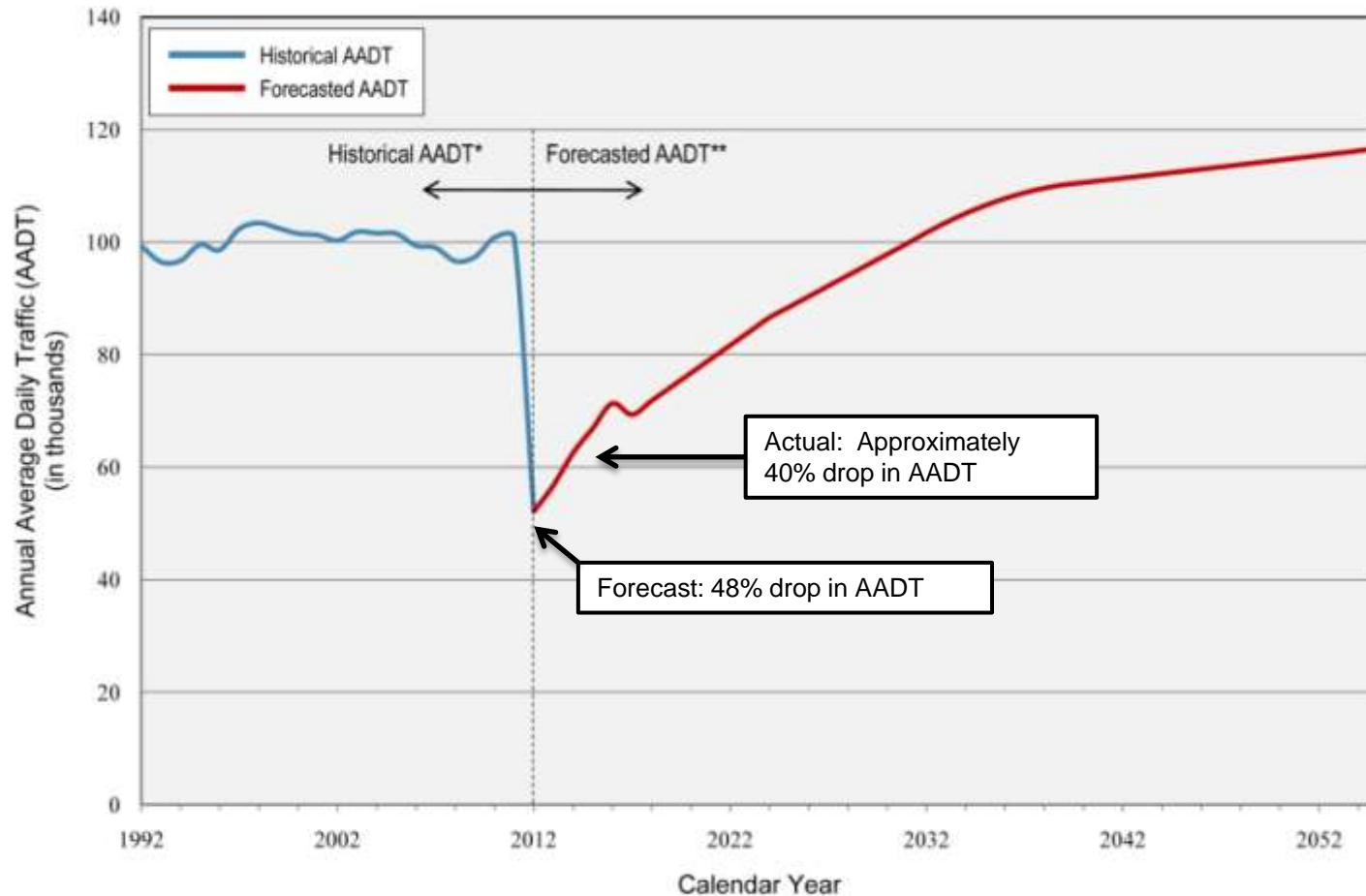




# SR 520 Bridge Toll Rate Comparison

		Toll Rates		
		Pass	Pay By Plate	No pass or account
<b>Seattle – Eastside SR 520 Bridge</b>				
 <ul style="list-style-type: none"> <li>• Toll rates based on time of day</li> <li>• Toll rates charged in each direction</li> </ul>	\$3.50 7-9 am, 3-6 pm \$2.25 mid-day (four rates)	\$0.25 more than pass rate	\$1.50 more than pass rate	
<b>San Francisco – Oakland Bay Bridge</b>				
 <ul style="list-style-type: none"> <li>• Toll rates based on time of day</li> <li>• Toll rates charged in one direction</li> </ul>	No discount	N/A	\$6.00 5-10 am, 3-7 pm \$4.00 at off-peak (two rates)	
<b>Vancouver, B.C. – Golden Ears Bridge</b>				
 <ul style="list-style-type: none"> <li>• Flat toll rate</li> <li>• Toll rates charged in each direction</li> </ul>	\$2.90	\$3.45	\$4.10	

# Historical and Forecasted SR 520 Bridge Volumes



\* Historical AADT: WSDOT Annual Traffic Data Reports  
\*\* Forecast AADT: T&R Analysis

# Traffic Monitoring

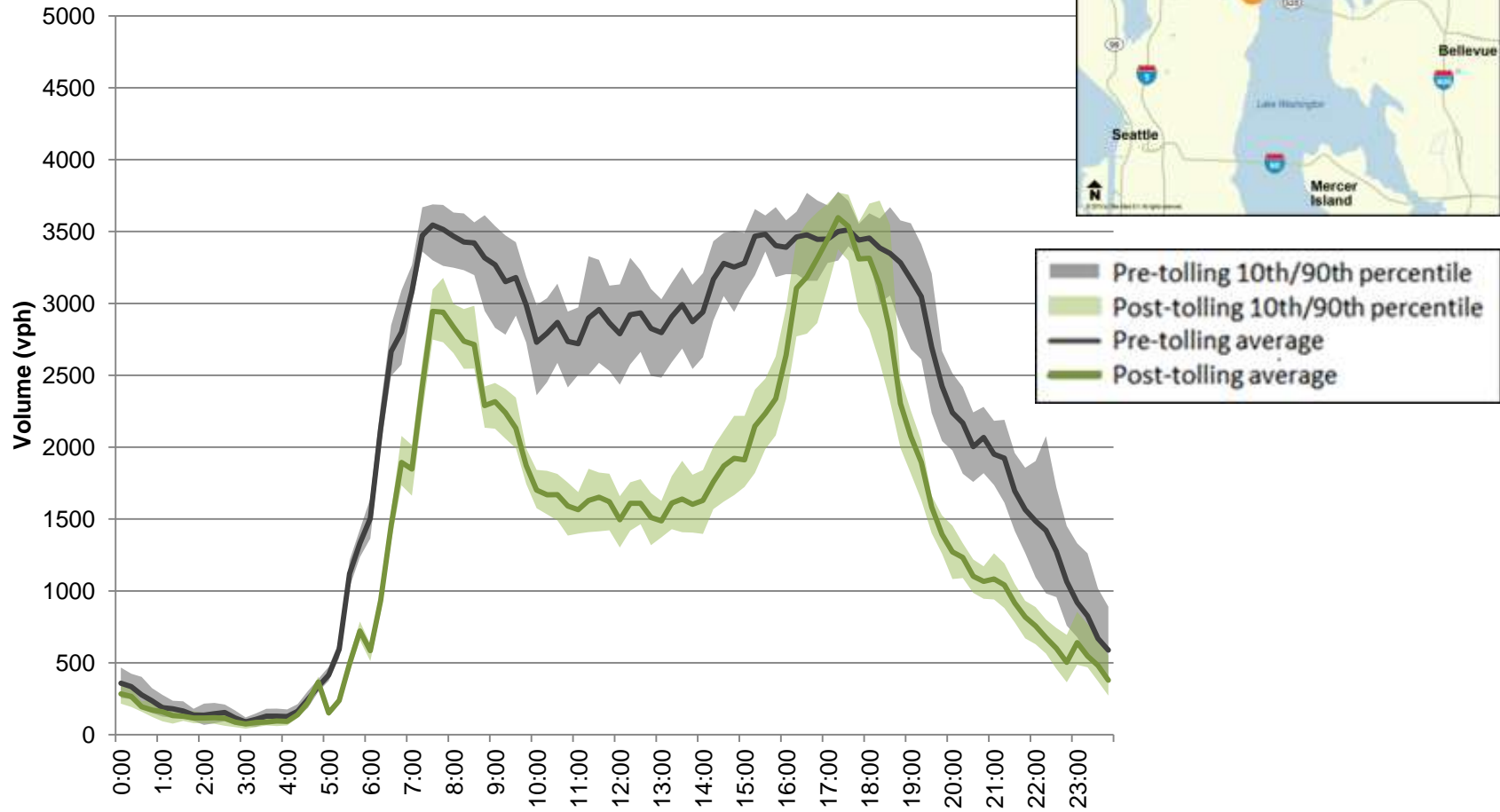
- **Monitor** all of the Lake Washington highway corridors
- **Collaborate** with local jurisdictions to monitor key routes on highways and city streets
- **Coordinate** signals where possible and needed
- **Share** what we learn about traffic with the public, local governments, the Legislature and the Transportation Commission
- **Evaluate** the effects of the Urban Partnership elements (Battelle and the Volpe Center)



# Initial Traffic Results – Through April 2012

- SR 520
  - Toll traffic is generally at or above projected levels in the first four months of operations.
- I-90
  - Traffic has increased 5 to 10 percent.
  - I-90 travel times are 2-3 minutes longer on average during the peaks.
- SR 522
  - Traffic has increased 5 percent.
  - Travel times have not increased during the peaks.
- I-5
  - Traffic is within 2 percent of pre-tolling levels.
  - Travel times between Seattle and Northgate are 2-3 minutes slower in both directions.
- I-405
  - Traffic is within 2 percent of pre-tolling levels
  - Travel times through Bellevue are 2-3 minutes slower in both directions.

# Traffic Volume: Westbound SR 520

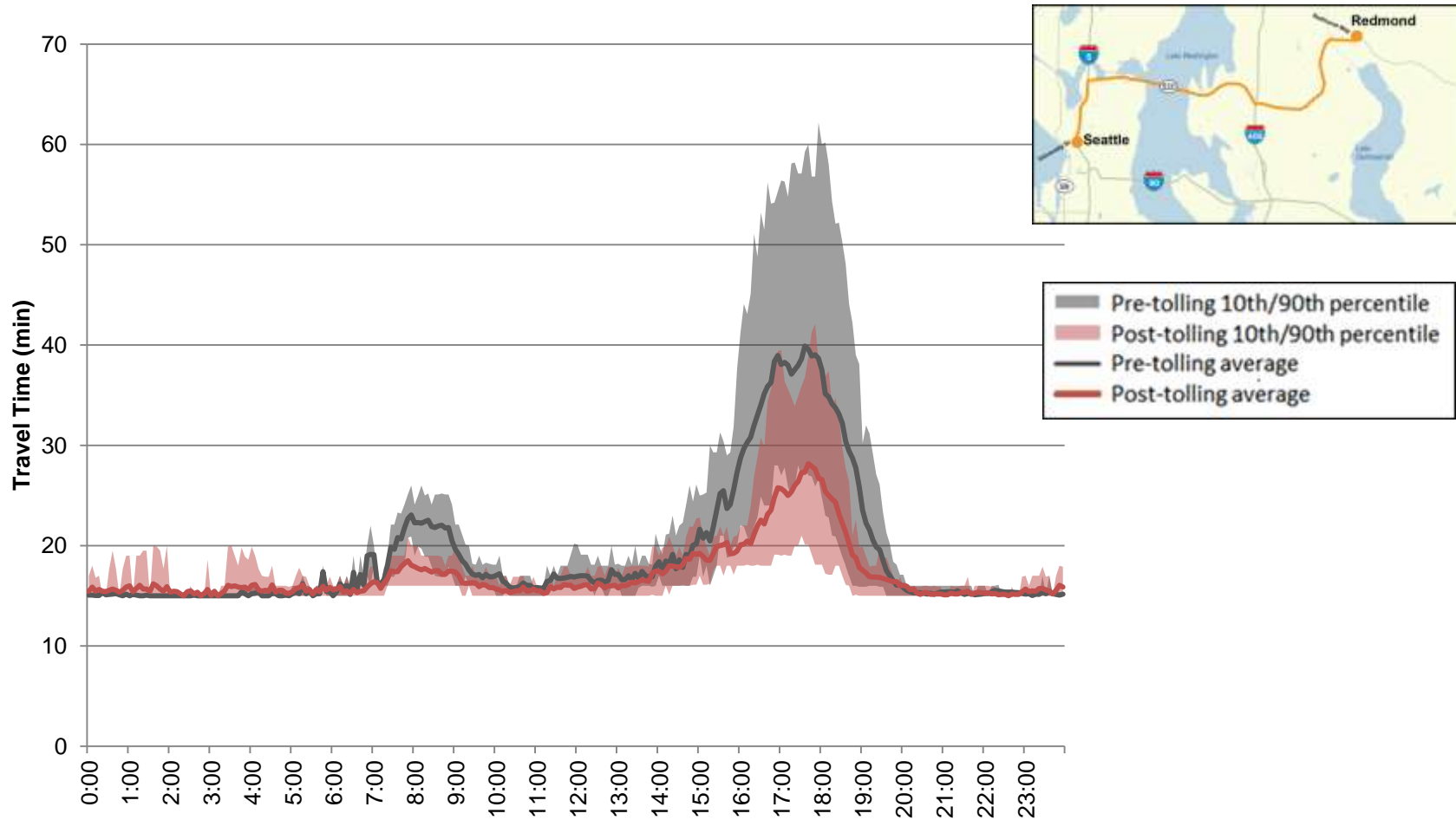


Pre-tolling 10th/90th percentile  
 Post-tolling 10th/90th percentile  
 Pre-tolling average  
 Post-tolling average

Pre-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays Oct. 29 -Nov. 18, 2011 and Nov. 26-Dec.16, 2011  
 Post-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays March 1-31, 2012

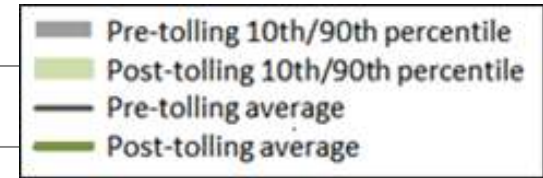
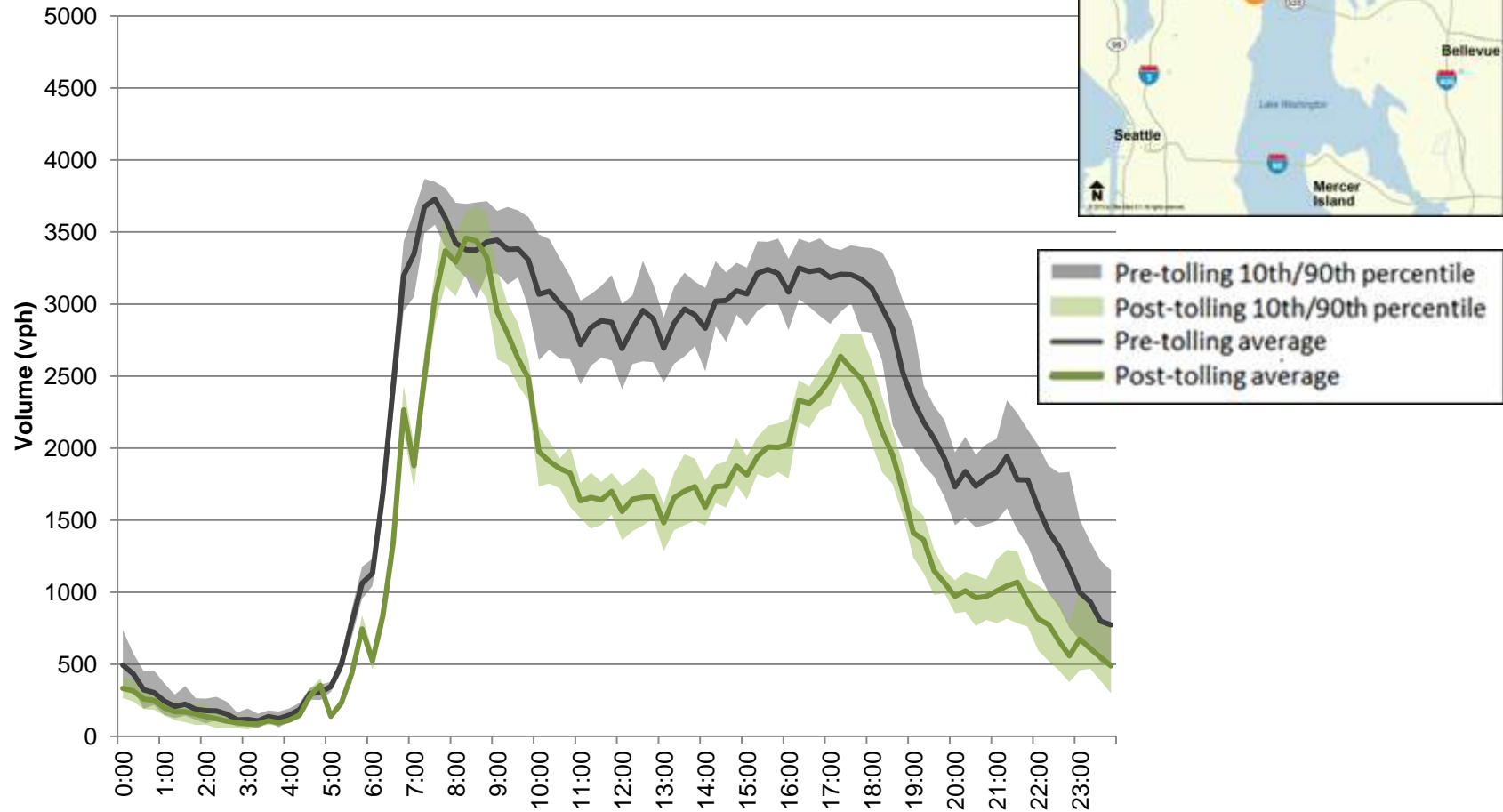


# Travel Time: Redmond to Seattle via SR 520



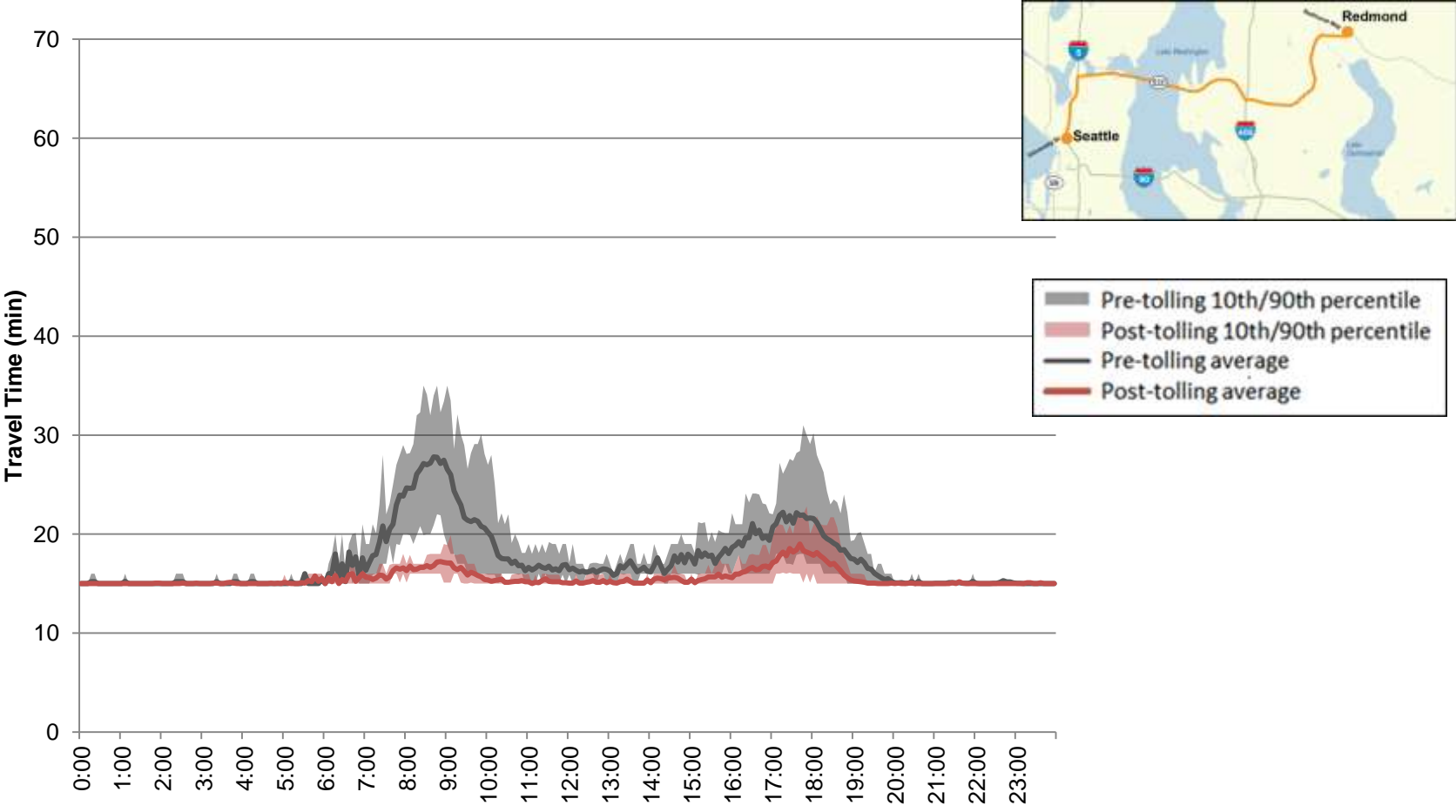
Pre-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays Oct. 29 -Nov. 18, 2011 and Nov. 26-Dec.16, 2011  
Post-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays March 1-31, 2012

# Traffic Volume: Eastbound SR 520



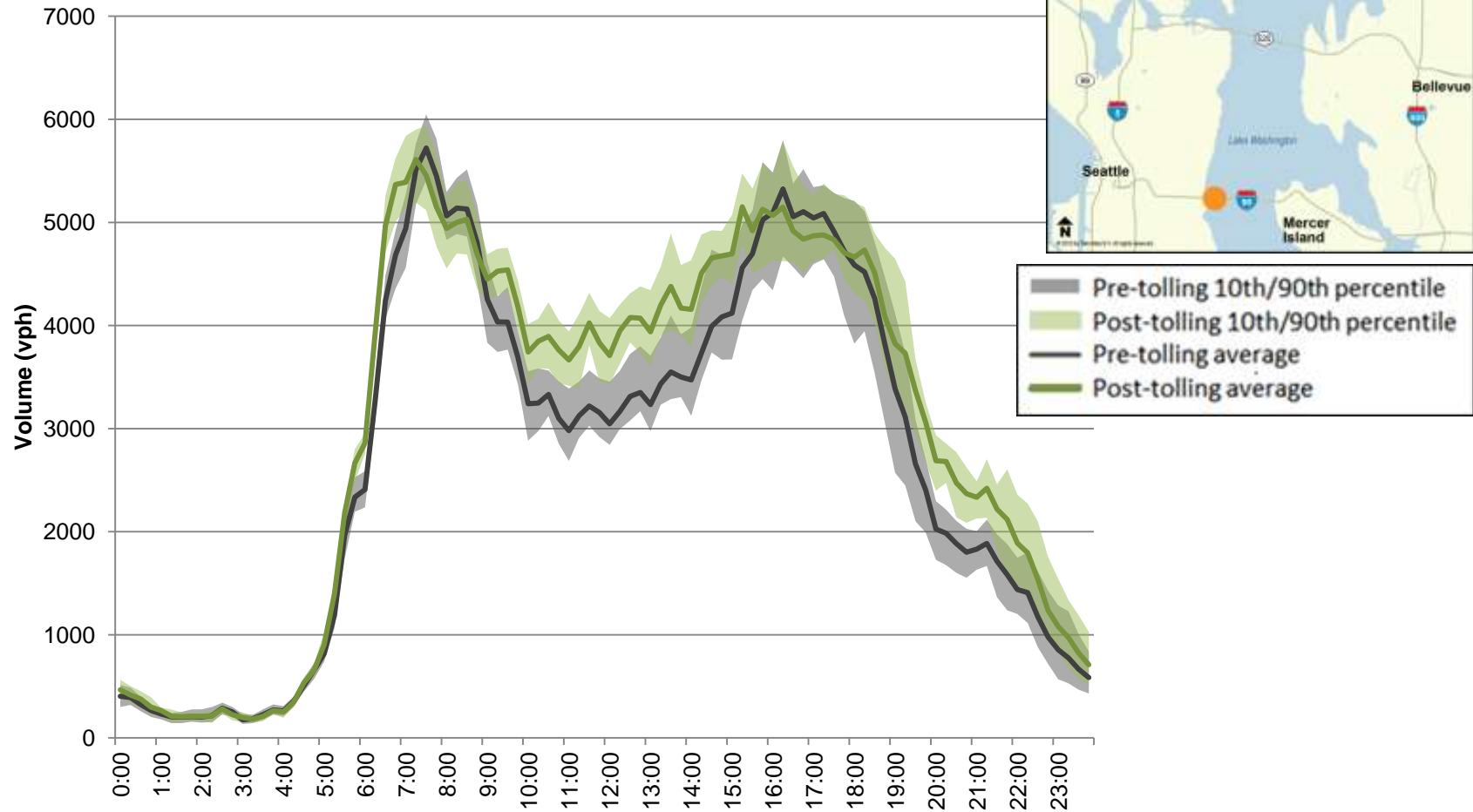
Pre-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays Oct. 29 -Nov. 18, 2011 and Nov. 26-Dec.16, 2011  
 Post-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays March 1-31, 2012

# Travel Time: Seattle to Redmond via SR 520



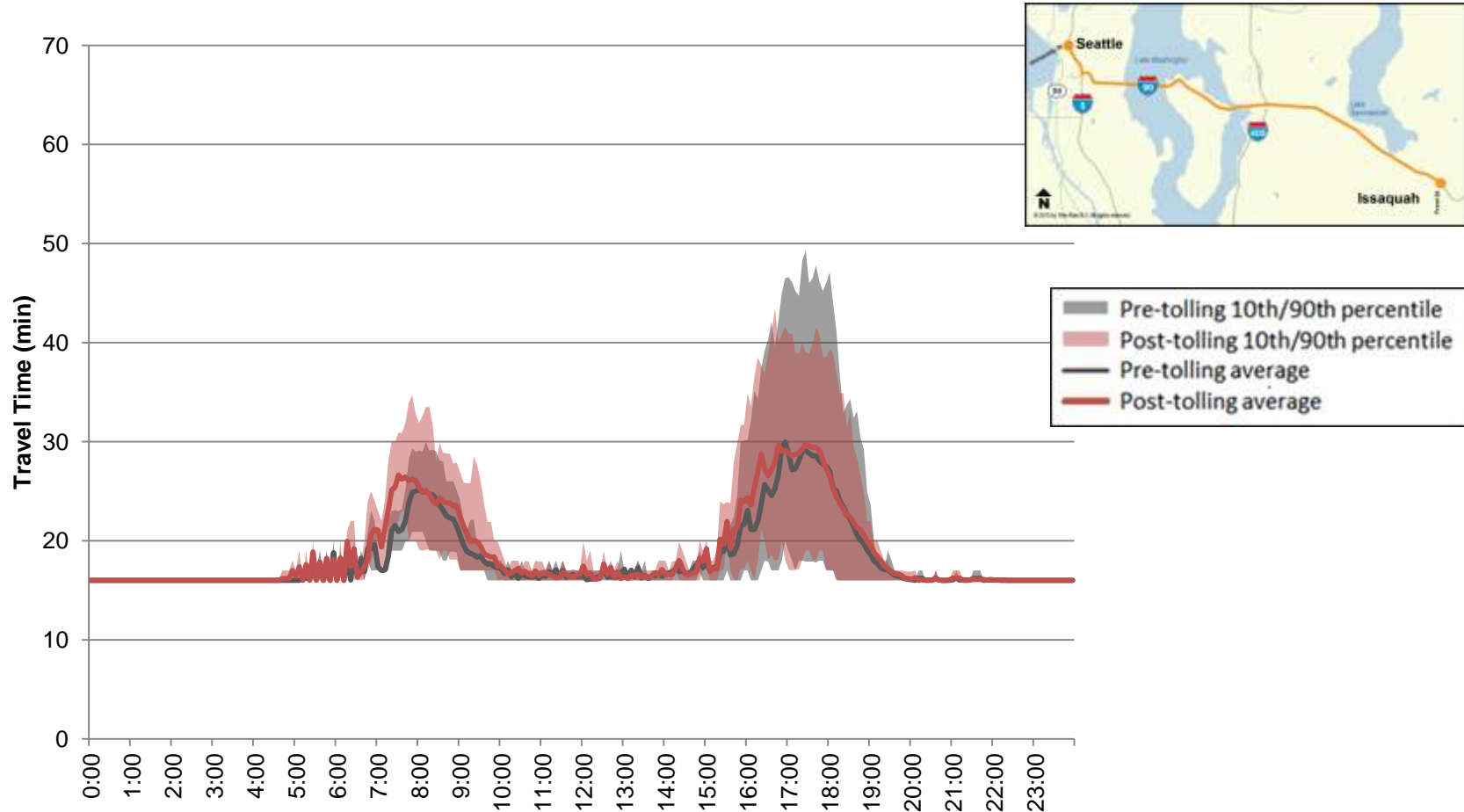
Pre-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays Oct. 29 -Nov. 18, 2011 and Nov. 26-Dec.16, 2011  
Post-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays March 1-31, 2012

# Traffic Volume: Westbound I-90



Pre-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays Oct. 29 -Nov. 18, 2011 and Nov. 26-Dec.16, 2011  
 Post-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays March 1-31, 2012

# Travel Time: Issaquah to Seattle via I-90



Pre-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays Oct. 29 -Nov. 18, 2011 and Nov. 26-Dec.16, 2011  
Post-tolling 10<sup>th</sup> to 90<sup>th</sup> percentile and average is for weekdays March 1-31, 2012



# SR 520 Quarterly Toll Traffic Results

## January – March 2012

JAN–MAR 2012 TOLL TRAFFIC	Actual <sup>1</sup>	Forecast <u>without</u> Ramp-Up <sup>2</sup>	% <i>Variance</i>	Forecast <u>with</u> Ramp-Up <sup>2,3</sup>	% <i>Variance</i>
Average Weekday <sup>4</sup>	60,236	58,424	<b>+3%</b>	55,503	<b>+9%</b>
Average Weekend <sup>5</sup>	36,244	28,854	<b>+26%</b>	27,411	<b>+32%</b>
Average Daily <sup>4,6</sup>	54,238	49,650	<b>+9%</b>	47,168	<b>+15%</b>

- Average weekday daily traffic exceeded forecasts by as much as +9%
- Average weekend daily traffic exceeded forecasts by as much as +32%
- Overall, average daily traffic was between +9% to +15% above forecasts, depending on whether ramp-up was factored into the forecast.

<sup>1</sup> Traffic counts generated by in-lane toll collection equipment. Actual counts include transit buses and other toll-exempt vehicles.

<sup>2</sup> CDM Smith forecasts, inclusive of a monthly seasonal adjustment factor. Forecasts exclude transit buses and other toll-exempt vehicles.

<sup>3</sup> Factors in a 5% reduction to reflect the overall ramp-up adjustment projected by CDM Smith for FY 2012.

<sup>4</sup> Average weekday and average daily traffic excludes minor periods of equipment malfunction in March.

<sup>5</sup> Average weekend daily traffic excludes planned weekend construction closures.

<sup>6</sup> Average daily traffic across all weekdays and weekends, except as noted in (4) and (5) above.

# Initial SR 520 March Revenue Results

MARCH 2012 TOLL REVENUE	Actual	Forecast <u>without</u> Ramp-Up	% <i>Variance</i>	Forecast <u>with</u> Ramp-Up <sup>4</sup>	% <i>Variance</i>
Gross Revenue Before Free Trip Incentives <sup>1</sup>	\$4,712,138	\$4,564,000	<b>+3%</b>	\$4,336,000	<b>+9%</b>
Adjusted Gross Revenue after Incentives and Allowance for Doubtful Accounts <sup>2,3</sup>	\$4,572,948	\$3,940,000	<b>+16%</b>	\$3,718,000	<b>+23%</b>

- Gross revenue (before free trip incentives) ranges from **+3%** to **+9%** above forecasts, depending on whether ramp-up is factored into the forecast.
- Gross revenue adjusted for free trip incentives and an allowance for doubtful accounts ranges from **+16%** to **+23%** above forecasts.
- Values based on preliminary, un-reconciled database query data.<sup>5</sup>

<sup>1</sup> [Footnote applies to "Forecast" columns only] – CDM Smith forecast inclusive of a monthly seasonal adjustment and a monthly average value for planned weekend construction closures; net of allowances for unreadable license plates / inability to identify vehicle owner; and inclusive of \$0.25 Pay By Plate fee revenues and \$0.50 customer initiated payment credits.

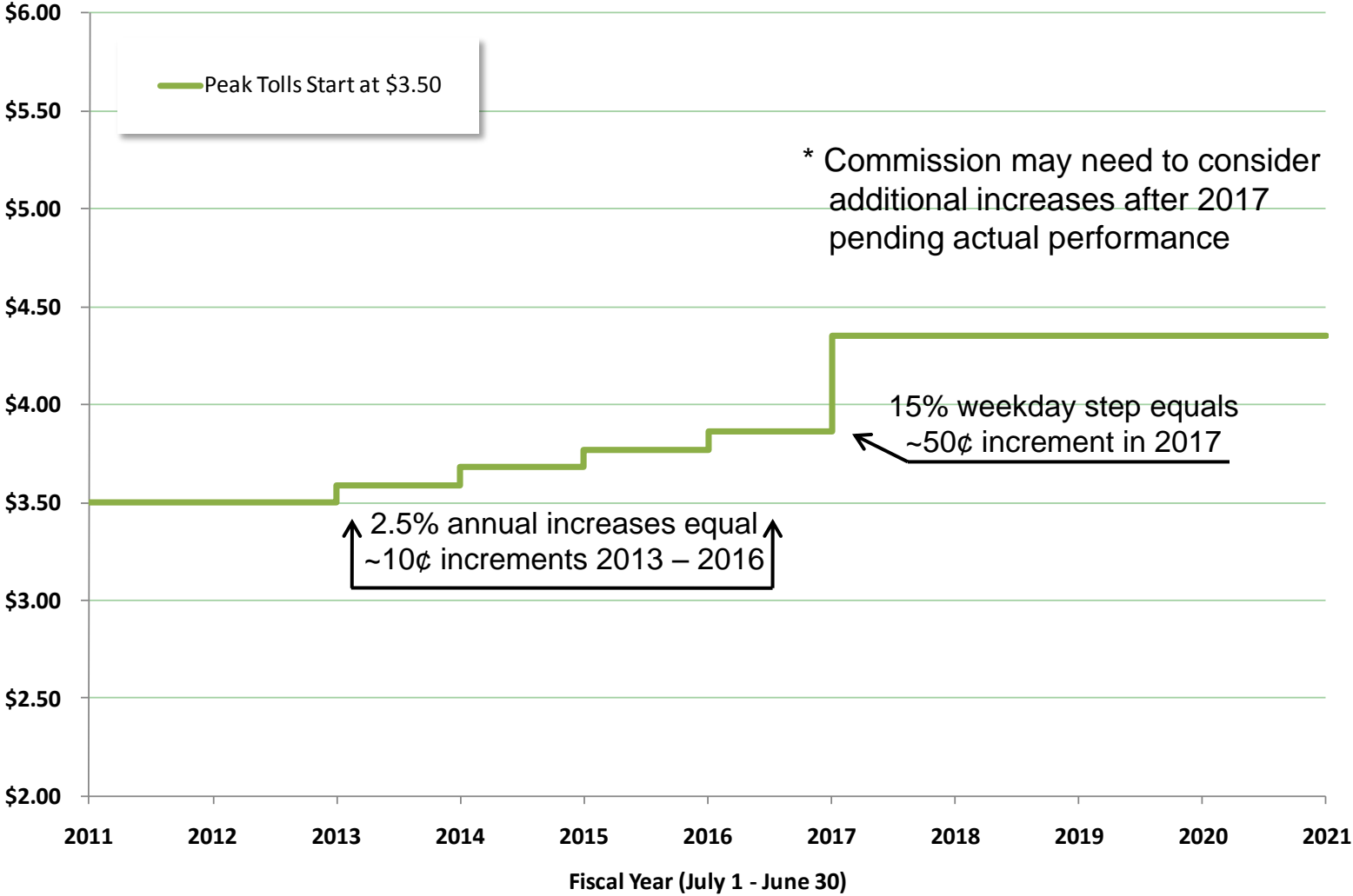
<sup>2</sup> [Footnote applies to "Forecast" columns only] – Total revenue reduction due to free trip incentives was estimated to be \$1.5 million by the end of March 2012 and was assumed to be distributed equally over three months.

<sup>3</sup> The allowance for doubtful accounts uses an accounting estimate of 10% of the amount of Pay By Mail toll bills issued will be uncollectible. This amount results in a direct reduction to toll revenue for the facility.

<sup>4</sup> Factors in a 5% reduction to reflect the overall ramp-up adjustment projected by CDM Smith for FY 2012.

<sup>5</sup> The CSC vendor has not yet completed preparation of official financial reports.

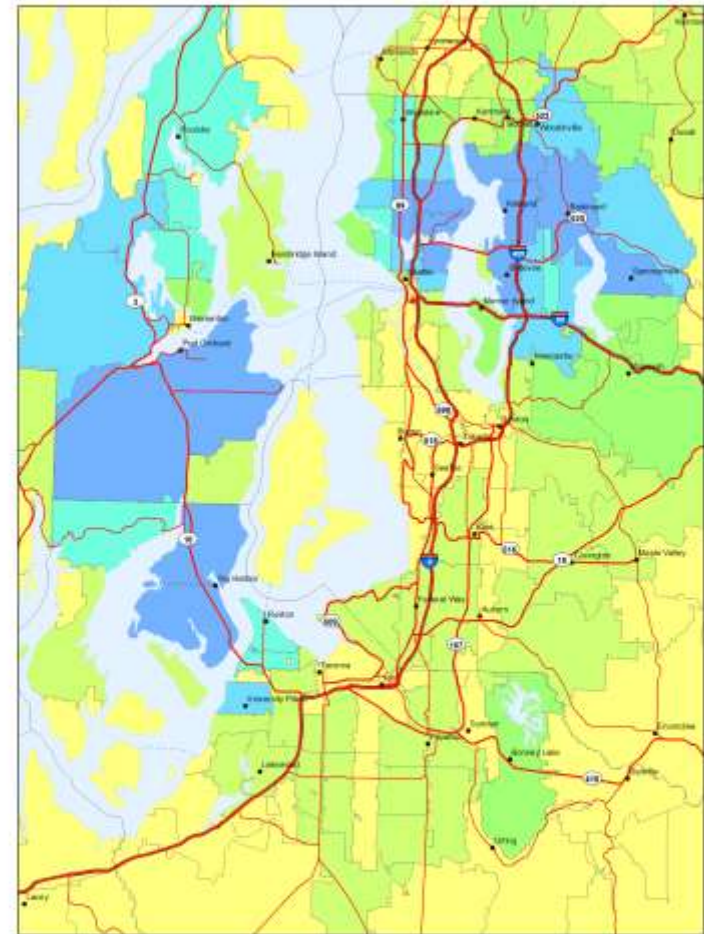
# Assumed Peak Period Toll Rates Over Time



Note: All toll rates expressed in year of occurrence dollars (i.e., FY 2017 toll rates are 2016 dollars and would start July 1, 2016)

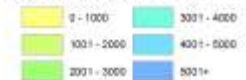
# Good To Go! accounts by zip code

- Number of *Good To Go!* accounts grows as we open new facilities
- Different markets for each facility
- Growth in Seattle and the Eastside for SR 520 tolling



 **Washington State  
Department of Transportation**  
Data Source - WSDOT Customer Service Center  
Address Priority - Contact, Shipping, Billing  
4.6.2012

**Good To Go!™ Accounts  
per Zip Code 4.6.2012**



# Conclusion

- With only a few months of operations data is only an early indication of what is happening.
- Preliminary observations are positive and encouraging that our objectives are being met:
  - Tolls help pay for the replacement of the SR 520 bridge.
  - Variable tolls reduce congestion and improve reliability.





# Questions?

For more information please contact

**Craig Stone**

Toll Division Director

at

206-464-1222 or [StoneC@wsdot.wa.gov](mailto:StoneC@wsdot.wa.gov)