

# SR 520 Bridge Toll Rate Setting

**Patty Rubstello, P.E.**  
Assistant Secretary  
Toll Division

**Tim Boesch, AICP**  
Project Manager  
CDM Smith

**Auden Kaehler**  
Consultant  
WSP | Parsons Brinckerhoff

**Washington State Transportation Commission**  
**February 17, 2016**

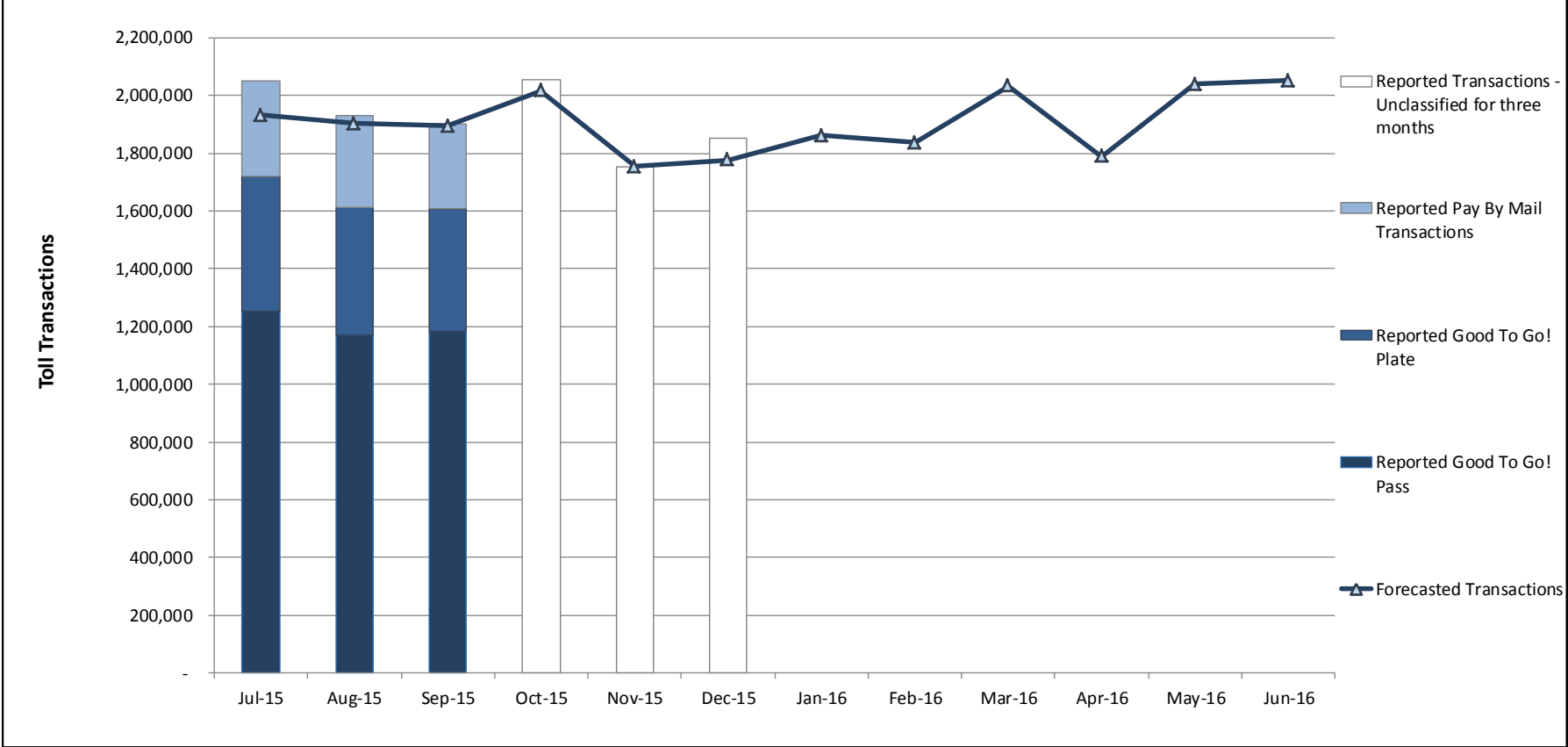
# Presentation Outline

- **FY 2016 Q2 Traffic and Revenue**
- **SR 520 Toll Rate Setting**
  - Rate Setting Overview
  - Financial Sufficiency Requirements
  - Toll Rate Scenario Results
    - Toll scenarios analyzed
    - Results by scenario
    - Summary information
- **Next Steps**

# SR 520 Bridge Performance Reporting

# FY 2016 Q2 Forecast and Reported Toll Transactions

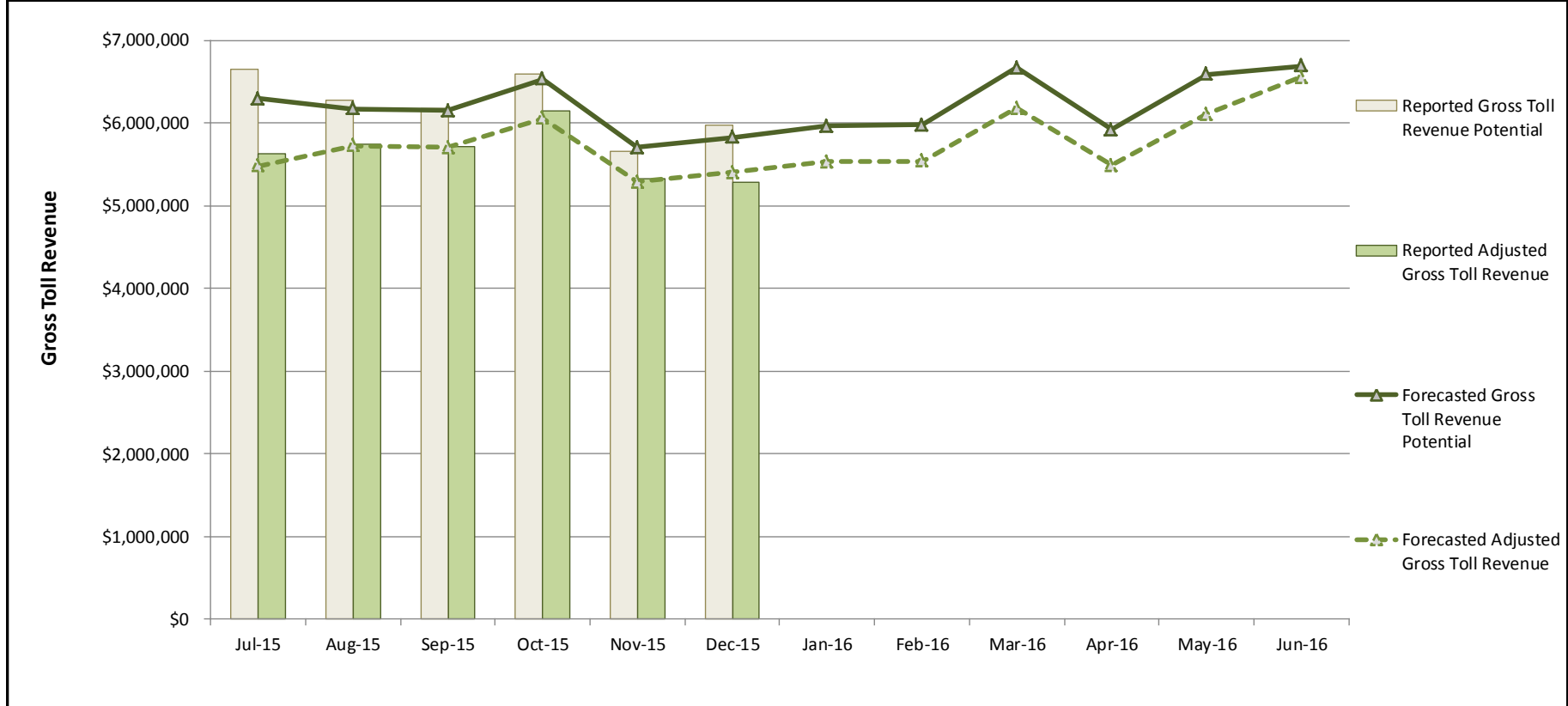
TOLL TRANSACTIONS	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Fiscal Year To Date	Annual Total
Forecasted Closure Days <sup>1</sup>	-	1.4	-	-	2.0	2.0	-	-	1.0	4.0	-	-	5.4	10.4
Reported Closure Days	-	1.4	-	-	1.7	0.8							3.9	
Forecasted Transactions <sup>2</sup>	1,932,000	1,903,000	1,894,000	2,016,000	1,754,000	1,777,000	1,862,000	1,837,000	2,033,000	1,788,000	2,038,000	2,052,000	11,276,000	22,886,000
Reported Transactions <sup>3</sup>	2,048,217	1,931,808	1,902,320	2,052,569	1,752,932	1,852,481							11,540,327	
Variance From Forecast	116,217	28,808	8,320	36,569	(1,068)	75,481							264,327	
Variance - % Change	6.0%	1.5%	0.4%	1.8%	(0.1%)	4.2%							2.3%	
Reported Good To Go! Pass	61.2%	60.6%	62.1%	-	-	-	-	-	-	-	-	-	61.3%	
Reported Good To Go! Plate	22.8%	23.0%	22.3%	-	-	-	-	-	-	-	-	-	22.7%	
Reported Pay By Mail	16.0%	16.5%	15.6%	-	-	-	-	-	-	-	-	-	16.0%	



Footnotes are provided at the end of the presentation.

# FY 2016 Q2 Forecast and Reported Gross Toll Revenue

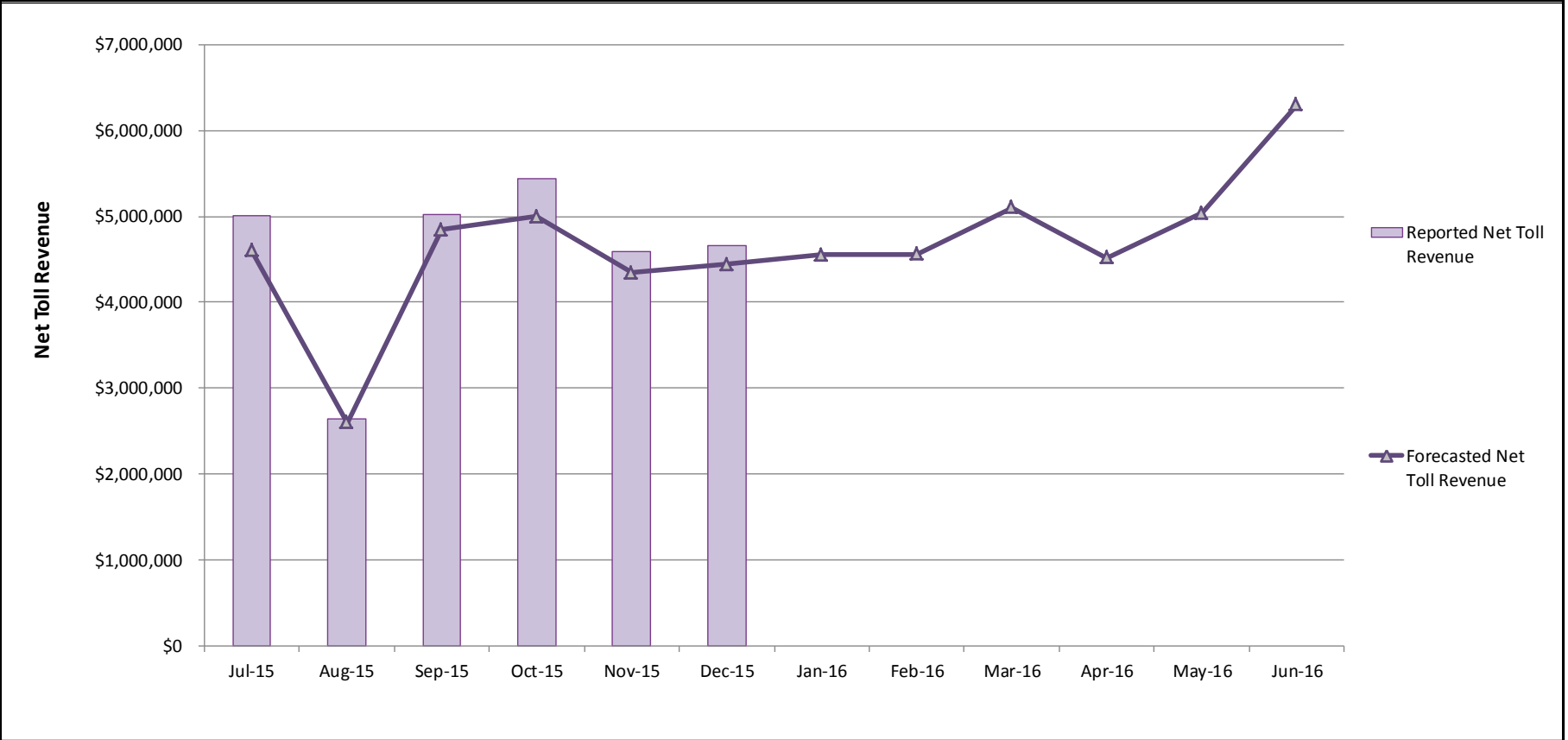
GROSS TOLL REVENUE	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Fiscal Year To Date	Annual Total
Forecasted Closure Days <sup>1</sup>	-	1.4	-	-	2.0	2.0	-	-	1.0	4.0	-	-	5.4	10.4
Reported Closure Days	-	1.4	-	-	1.7	0.8							3.9	
Forecasted Potential <sup>2</sup>	\$6,293,000	\$6,174,000	\$6,150,000	\$6,533,000	\$5,705,000	\$5,829,000	\$5,965,000	\$5,978,000	\$6,667,000	\$5,922,000	\$6,588,000	\$6,688,000	\$36,684,000	\$74,492,000
Reported Potential <sup>3</sup>	\$6,645,846	\$6,273,471	\$6,168,971	\$6,590,492	\$5,656,778	\$5,971,444							\$37,307,002	
Variance From Forecast	\$352,846	\$99,471	\$18,971	\$57,492	(\$48,222)	\$142,444							\$623,002	
Variance - % Change	5.6%	1.6%	0.3%	0.9%	(0.8%)	2.4%							1.7%	
Forecasted Adjusted <sup>4</sup>	\$5,482,022	\$5,724,000	\$5,701,000	\$6,056,000	\$5,288,000	\$5,403,000	\$5,530,000	\$5,541,000	\$6,181,000	\$5,490,000	\$6,106,000	\$6,551,978	\$33,654,022	\$69,054,000
Reported Adjusted <sup>5</sup>	\$5,627,319	\$5,740,750	\$5,711,531	\$6,143,241	\$5,322,810	\$5,277,914							\$33,823,565	
Variance From Forecast	\$145,298	\$16,750	\$10,531	\$87,241	\$34,810	(\$125,086)							\$169,544	
Variance - % Change	2.7%	0.3%	0.2%	1.4%	0.7%	(2.3%)							0.5%	



Footnotes are provided at the end of the presentation.

# FY 2016 Q2 Forecast and Reported Net Toll Revenue

NET TOLL REVENUE	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Fiscal Year To Date	Annual Total
Forecasted Net Revenue <sup>1</sup>	\$4,602,022	\$2,596,000	\$4,841,000	\$4,997,000	\$4,345,000	\$4,442,000	\$4,550,000	\$4,558,000	\$5,103,000	\$4,515,000	\$5,040,000	\$6,297,978	\$25,823,022	\$55,887,000
Reported Net Revenue <sup>2</sup>	\$5,003,575	\$2,641,014	\$5,024,301	\$5,442,901	\$4,584,074	\$4,662,040							\$27,357,904	
Variance From Forecast	\$401,553	\$45,014	\$183,301	\$445,901	\$239,074	\$220,040							\$1,534,882	
Variance - % Change	8.7%	1.7%	3.8%	8.9%	5.5%	5.0%							5.9%	



Footnotes are provided at the end of the presentation.

# SR 520 Bridge Toll Rate Setting

# SR 520 Rate Setting Milestones

Date	Milestone
December	<ul style="list-style-type: none"> <li>Financial Results for Baseline and Alternative A</li> <li>WSTC Tolling Subcommittee proposes four additional scenarios for analysis</li> </ul>
February	<ul style="list-style-type: none"> <li>Preliminary toll scenario results</li> <li>Subcommittee recommendation</li> <li>Office of the State Treasurer verifies sufficiency likelihood</li> </ul>
March	<ul style="list-style-type: none"> <li>Public Input Meetings</li> <li>Office of the State Treasurer verifies sufficiency of step increase</li> </ul>
April	<ul style="list-style-type: none"> <li>Commission proposes draft toll schedule</li> <li>File CR 102 (formal rate proposal)</li> </ul>
May	<ul style="list-style-type: none"> <li>Public Hearing</li> <li>Adopt toll rates</li> <li>Office of the State Treasurer certification of proposed rates</li> <li>File CR 103 (rate adoption)</li> </ul>
July 1, 2016	<ul style="list-style-type: none"> <li>New toll rates take effect</li> </ul>



# SR 520 Rate Setting Context

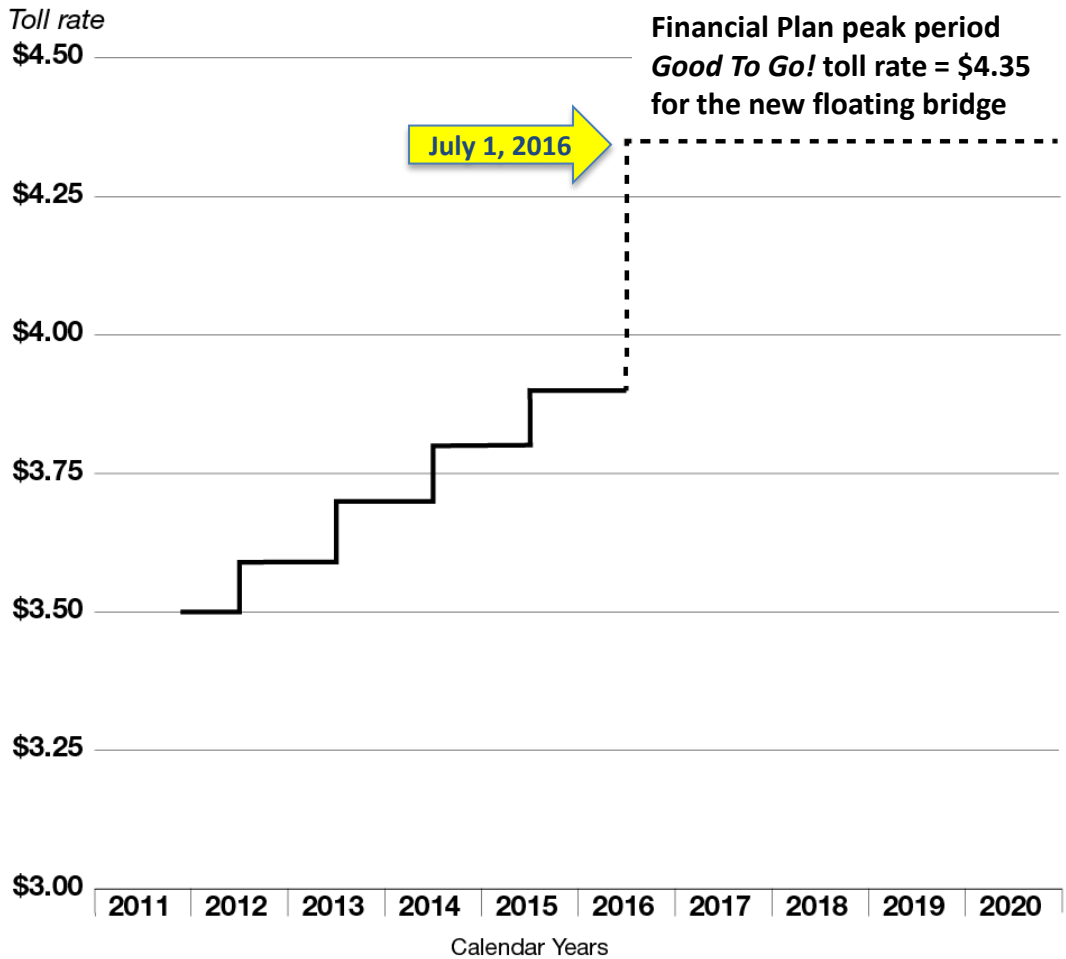
- **2011 — Commission sets initial SR 520 toll rates**
  - \$3.50 initial *Good To Go!* peak toll on existing bridge starting 12/29/2011
  - Commission acknowledges that the SR 520 Financial Plan requires:
    - 2.5% annual increases each year (nickel rounding added 7/1/2013)
    - A “step increase” to higher tolls (\$4.35 peak period) and night tolling (11PM-5AM) concurrent with the completion of the new floating bridge in FY 2017
- **2015 — Commission proposes \$2.00 Pay By Mail toll increment**
  - Raising this increment to \$2.00 aligns SR 520 with I-405 and TNB
  - Elimination of the \$0.50 short-term discount also proposed
  - These assumptions have been included in the 2015 T&R forecasts and financial analysis
- **December 2015 — Tolling Subcommittee Meeting**
  - Subcommittee proposes four toll scenarios to test as alternatives to the FY 2017 Financial Plan toll rates
- **February 2016 — Analysis results for the four toll scenarios**

# Adopted SR 520 Toll Rate Schedule

Current adopted rate schedule in WAC 468.270.040 states,

“(b) Starting July 1, 2012, the toll rates will increase two and one-half percent annually, subject to review and potential adjustment by the commission, in order to generate toll revenue sufficient to meet the costs and obligations listed in RCW 47.56.830 through 47.56.850.”

Peak Period *Good To Go!* Toll Rate



Financial Plan peak period *Good To Go!* toll rate = \$4.35 for the new floating bridge

July 1, 2016

# SR 520 Financial Requirements Recap

- **Master Resolution No. 1117 requires that tolls be set such that pledged toll revenue is sufficient to cover all financial obligations**
  - Operations & maintenance (O&M) costs
  - Timely deposit of required amounts into reserve accounts, including but not limited to, debt service, O&M, R&R, deferred sales tax, and revenue stabilization reserves
  - Minimum debt service coverage covenants\*
  - “Other payments to comply with all financial and other covenants made by the State in this Master Resolution, in any Bond Sale Resolution and in other proceedings related to the issuance of Bonds.”
  - Other anticipated funding obligations of the System, giving due regard to the Projected Toll Rate Schedule provided to the Tolling Authority by WSDOT and the State Treasurer pursuant to Section 7.03(b) of this Master Resolution

\* Refers to the “Additional Bonds Test (ABT)” requirements in order for scheduled bond sales to occur

# SR 520 Financial Requirements Recap

**Sufficiency Test:** Projected Net Revenues (after paying O&M costs) in each fiscal year through the repayment of all debt must equal or exceed 100% of the aggregate amount of all required debt service and reserve payments, and meet the following debt service coverage ratios:

Debt Tier	Minimum Coverage Ratio Requirements	
	Additional Bonds Test*	Covenant
1 <sup>st</sup> Tier	2.00x	1.50x
3 <sup>rd</sup> Tier	1.30x	1.25x
4 <sup>th</sup> Tier	1.15x	1.10x

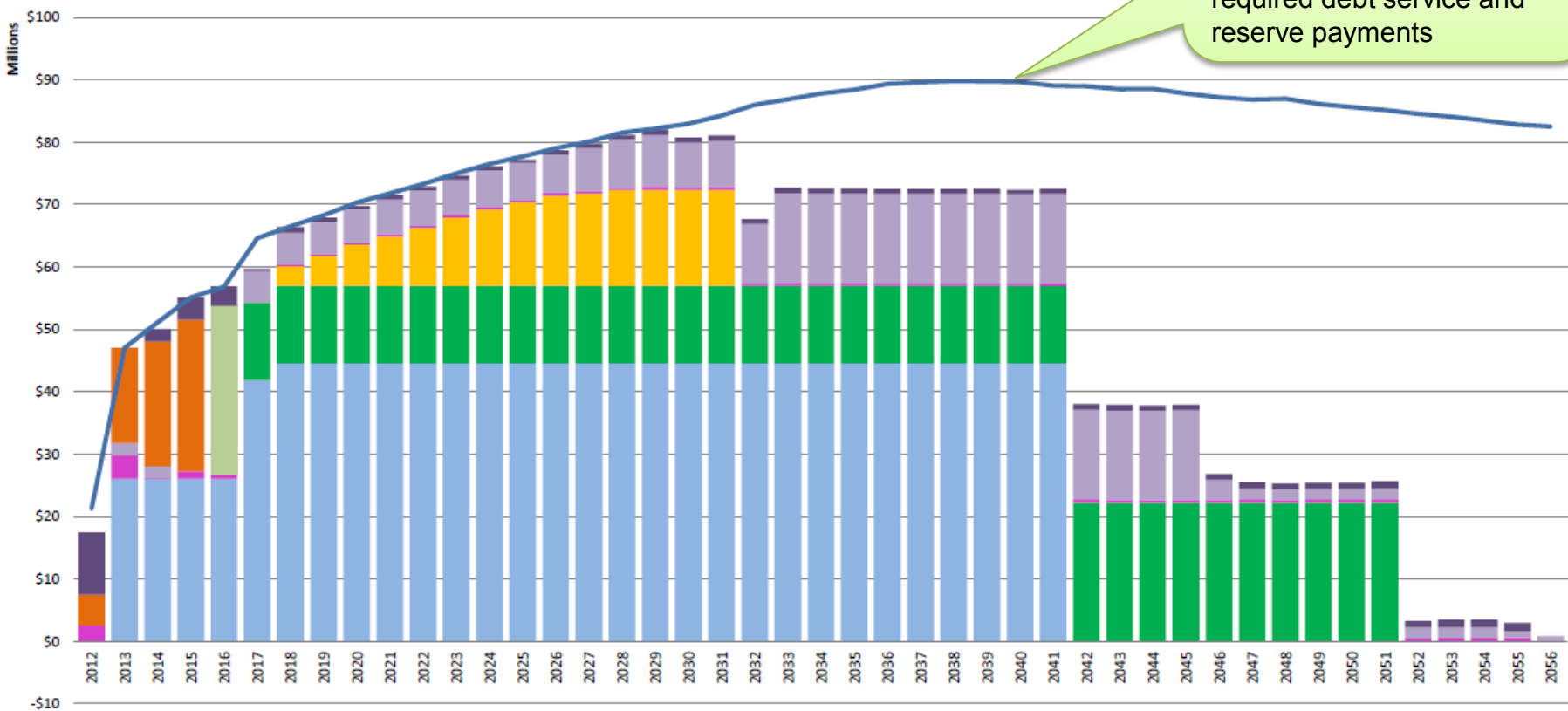
$$\text{Coverage (at Tier \#)} = \frac{\text{Net Revenues available for Debt Service}}{\text{Debt Service (through Tier \#)}}$$

\* The “Additional Bonds Test” coverage requirements must be met in order for scheduled bond sales to occur

# SR 520 Illustrative Sufficiency Example

All Required Expenditures/Deposits Coverage

Projected Net Revenues in every fiscal year must equal or exceed 100% of the aggregate amount of all required debt service and reserve payments



- Third Tier (Triple Pledge) Debt Service
- TIFIA Loan Debt Service
- First Tier (Toll Revenue) Debt Service
- Deposits to Deferred Sales Tax Sub-Account
- Deposits to O&M Reserve
- Motor Vehicle Fund Repayment
- Deposits to R&R Reserve
- Revenue Stabilization Account
- PAYGO from Tolls
- O&M Working Capital
- Net Toll Revenues

Source: Office of the State Treasurer (1/16/2015), based on the November 2014 Forecast.

# SR 520 Toll Rate Schedules Analyzed

Case	FY 2017+ Toll Schedule Features		
	Weekdays	Weekends	3+ Carpool Exemption
<b>Baseline</b>	<ul style="list-style-type: none"> <li>Financial Plan toll rates for the new bridge</li> <li>Approx. 15% “step increase”</li> <li>\$4.35 max peak toll</li> <li>\$2.90 midday toll</li> </ul>	<ul style="list-style-type: none"> <li>Financial Plan toll rates for the new bridge</li> <li>4.2% increase for midday peak only (11AM – 6PM)</li> <li>\$2.50 max midday toll</li> </ul>	Yes
<b>Alternative A</b>	<ul style="list-style-type: none"> <li>Financial Plan toll rates for the new bridge</li> <li>Approx. 15% “step increase”</li> <li>\$4.35 max peak toll</li> <li>\$2.90 midday toll</li> </ul>	<ul style="list-style-type: none"> <li>4.2% increase for midday peak only (11AM – 6PM)</li> <li>\$2.50 max midday toll</li> </ul>	No
<b>Scenario 1</b>	<ul style="list-style-type: none"> <li>Uniform 15% increase</li> <li>\$4.50 max peak toll</li> <li>\$2.80 midday toll</li> </ul>	<i>Same as Alternative A</i>	No
<b>Scenario 2</b>	<ul style="list-style-type: none"> <li>10% increase</li> <li>\$4.30 max peak toll</li> <li>\$2.70 midday toll</li> </ul>	<ul style="list-style-type: none"> <li>10% increase</li> <li>\$2.65 max midday toll</li> <li>\$2.05 shoulder / \$1.40 off-peak</li> </ul>	No
<b>Scenario 3*</b>	<ul style="list-style-type: none"> <li>Directionally tailored PM tolls</li> <li>\$4.25 max peak toll</li> <li>\$3.00 midday toll</li> </ul>	<ul style="list-style-type: none"> <li>\$2.75 max midday toll (+15%)</li> <li>\$2.00 shoulder toll (+8%)</li> <li>\$1.50 off-peak toll (+20%)</li> </ul>	No
<b>Scenario 4</b>	<i>Same as Baseline</i>	<ul style="list-style-type: none"> <li>10% increase vs Financial Plan</li> <li>\$2.75 max midday toll (+15%)</li> <li>\$2.05 shoulder / \$1.40 off-peak</li> </ul>	Yes

Note: All cases include nickel rounding of toll rates and a \$1.25 minimum overnight toll starting in FY 2017.

\* For Scenario 3, quarter rounding was applied to the toll rates for vehicles with three or more axles, calculated as multiples of the two-axle rates.

# Alternative A: Financial Plan Tolls | No Carpool Exemption

- **Key Features**

- No carpool exemptions
- Financial Plan “step increase” to new floating bridge weekday tolls (varies from 12-18%, averages 15%)
- \$4.35 maximum weekday peak toll
- Weekend midday toll (11AM-6PM) increases from \$2.40 to \$2.50
  - Existing weekend tolls at other times already at FY 2017 Financial Plan levels due to prior increase nickel rounding

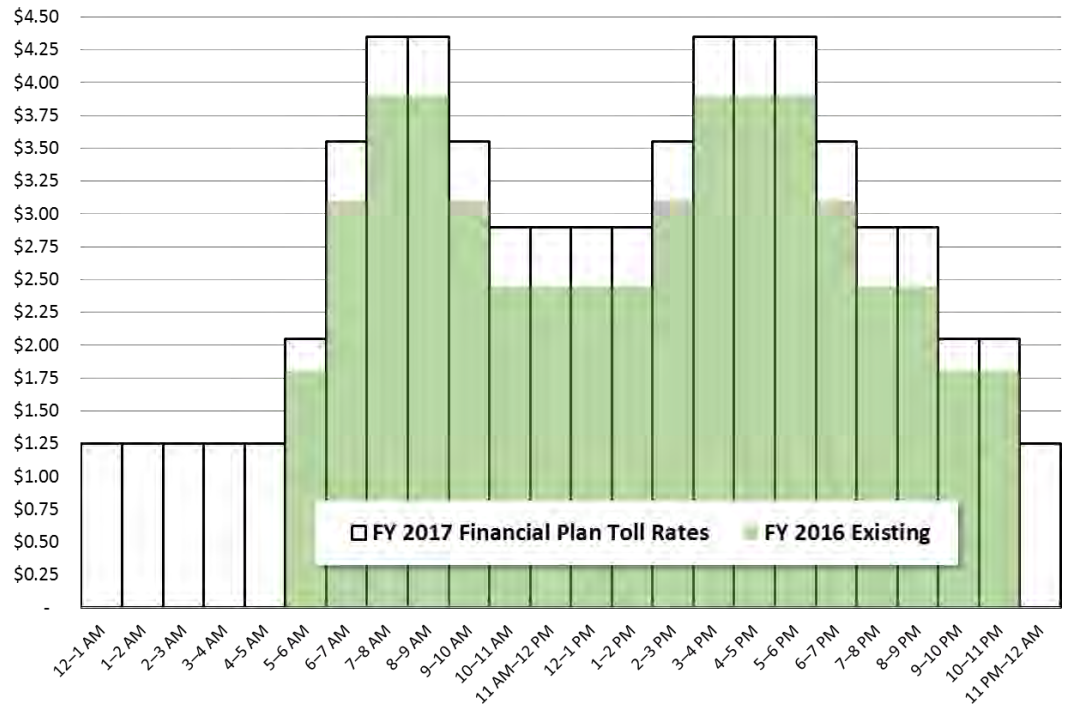
- **Key Findings**

- **Meets financial sufficiency requirements**
- Forecast Period Impacts
  - +2.7% more toll transactions than the Baseline
  - +5.9% more net toll revenue than the Baseline
- FY 2017 Daily Impacts
  - 3+ carpools use decreases by nearly 50%, from 4.5% to 2.4% of weekday traffic
  - AM peak volumes decrease by about 1.5%, PM peak by about 3.5%, midday by about 4.5%
  - No material impact on I-90 (less than 1% change in volume)
  - Speeds change very little (+/- 2 mph maximum)

Note: The 2015 Baseline and Alternatives A T&R forecasts were revised in January 2016 to correct weekend night travel estimates, resulting in a minor decrease to toll transactions (-0.5%) and gross revenue (-0.2%). All of the scenario results reflect this revision.

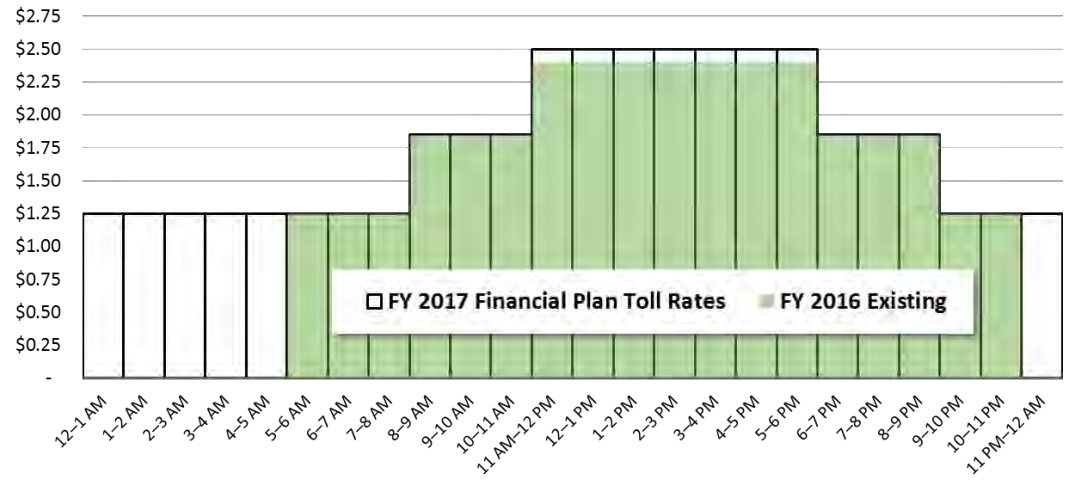
# Alternative A Toll Rate Schedules FY 2017+

**Weekday Good To Go! Toll Rates**



- Alternative A assumes the “FY 2017 Financial Plan Toll Rates” (black outlined bars)
- These rates date back to the original 2011 SR 520 Financial Plan and were intended to coincide with the completion of the new floating bridge
- Today’s existing rates are shown in green shading

**Weekend Good To Go! Toll Rates**





# Scenario 1: Uniform 15% Weekday Increase

- **Key Features**

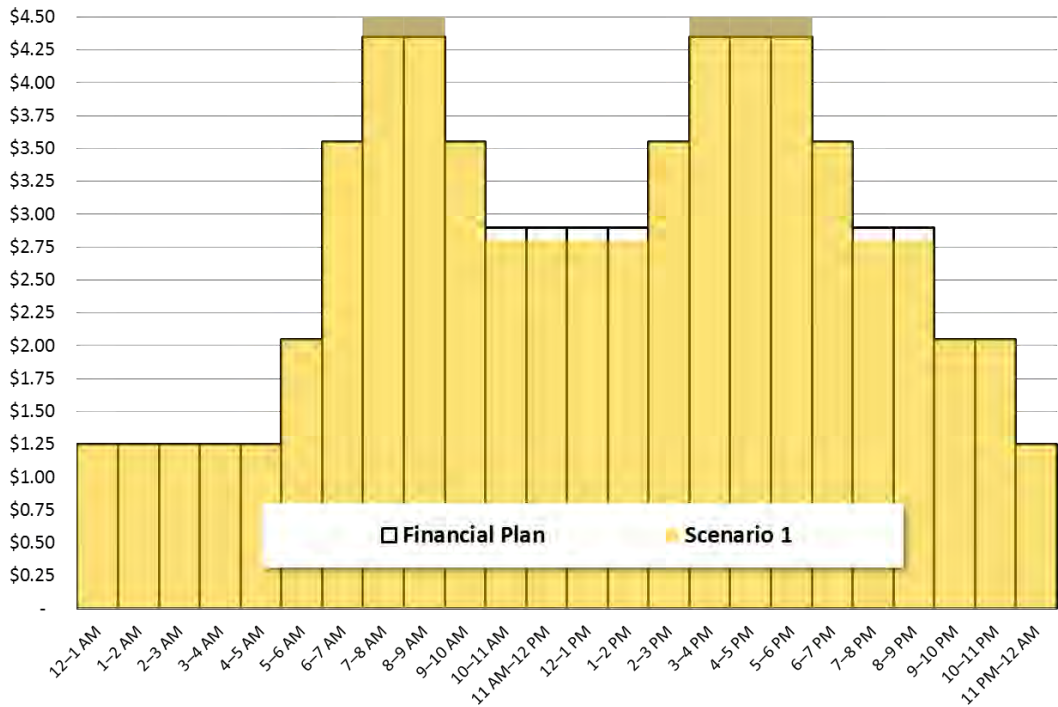
- No carpool exemptions
- Applies a uniform 15% increase to all weekday tolls, plus nickel rounding
- Slightly expands the peak / midday toll differential
- \$4.50 maximum weekday peak toll (highest tested)
- \$2.80 weekday midday toll | \$1.25 minimum overnight toll
- Weekend tolls same as Financial Plan (\$2.50 maximum)

- **Key Findings**

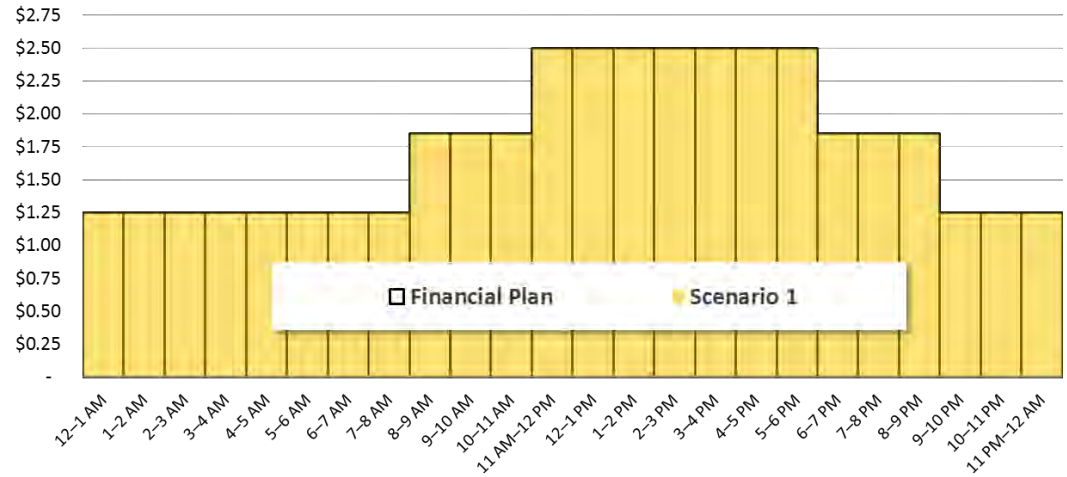
- **Meets financial sufficiency requirements**
- Forecast Period Impacts
  - +0.1% more toll transactions than Alternative A
  - +0.8% more net toll revenue than Alternative A
- FY 2017 Daily Impacts
  - AM and PM peak volumes drop by about 1.0%, midday volume rises by 2.2%
  - No material impact on I-90 (less than 0.5% change in volume)
  - Speeds change very little (+/- 1 mph maximum)
  - No weekend impacts due to same toll schedule as Alternative A

# Scenario 1 Toll Rate Schedules FY 2017+

**Weekday Good To Go! Toll Rates**



**Weekend Good To Go! Toll Rates**



# Scenario 2: 10% Weekday and Weekend Increase

- **Key Features**

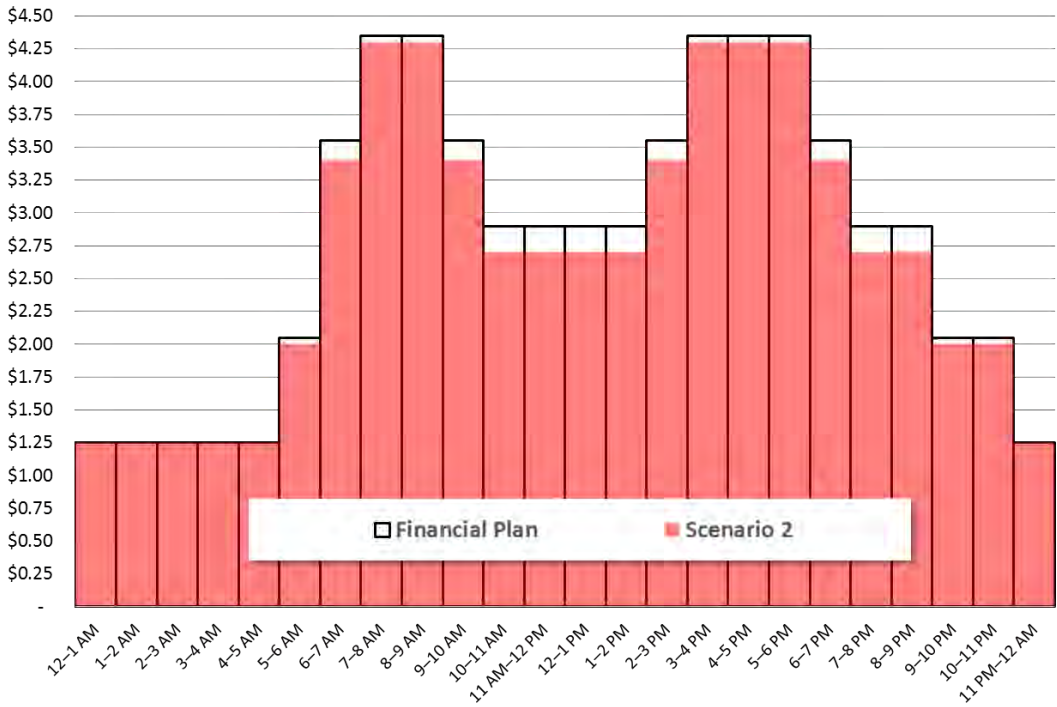
- No carpool exemptions
- Applies a 10% increase to both weekday and weekend tolls, plus nickel rounding
- \$4.30 maximum weekday peak toll
- \$2.70 weekday midday toll | \$1.25 minimum overnight toll
- \$2.65 maximum weekend toll | \$2.05 weekend shoulder | \$1.40 weekend off peak

- **Key Findings**

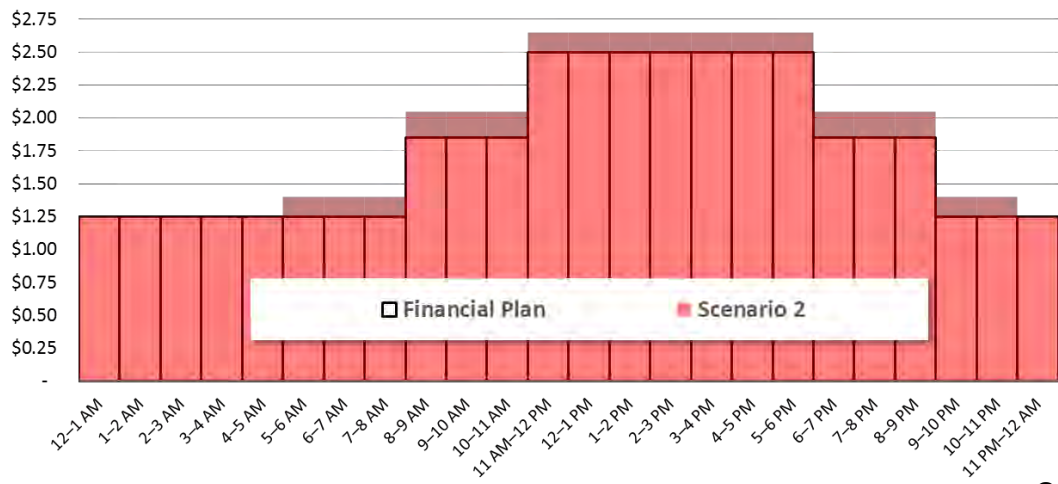
- **Meets financial sufficiency requirements**
- Forecast Period Impacts
  - +0.3% more toll transactions than Alternative A
  - -1.9% less net toll revenue than Alternative A
- FY 2017 Daily Impacts
  - AM and PM peak volumes rise less than 0.5%, midday volume rises 4.2%
  - No material impact on I-90 (slight decline in traffic)
  - Speeds change very little (+/- 1 mph maximum)
  - Weekend daily transactions decrease about 3.4%

# Scenario 2 Toll Rate Schedules FY 2017+

**Weekday Good To Go! Toll Rates**



**Weekend Good To Go! Toll Rates**



# Scenario 3: Directionally Tailored | Flattened | \$4.25 Cap

- **Key Features**

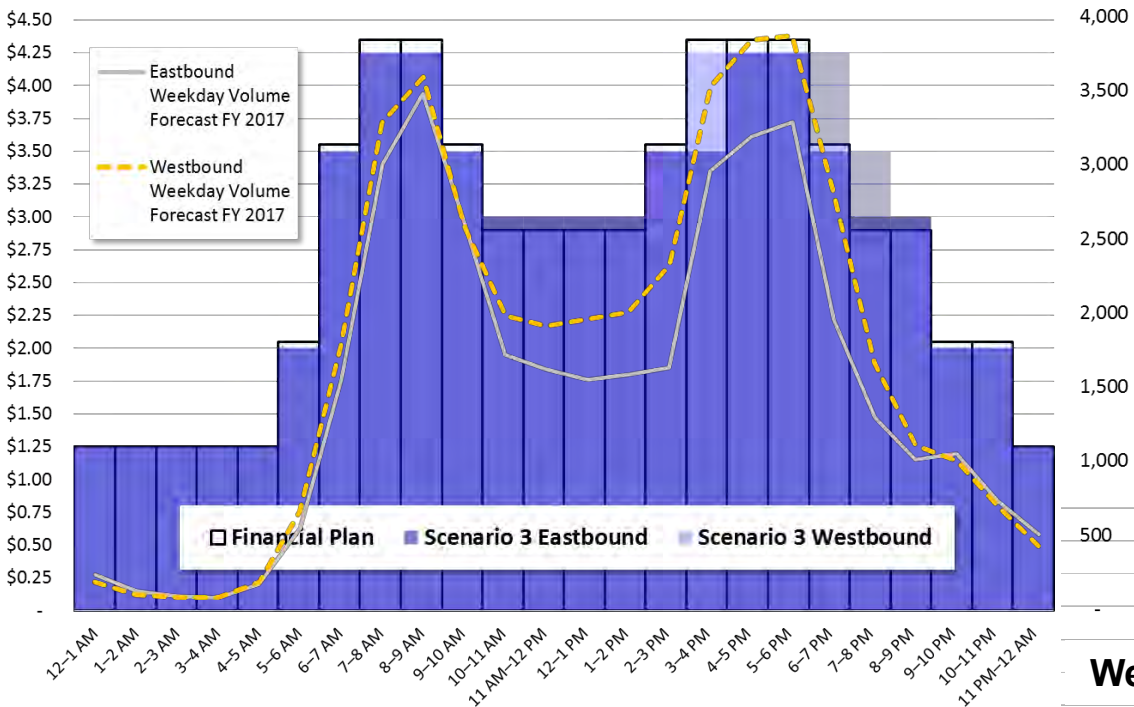
- Directionally tailored weekday afternoon tolls (longer westbound / shorter eastbound PM peak period)
- Slightly “flattened” time of day schedule
- \$4.25 maximum weekday peak toll (lowest tested, +9% over existing)
- \$3.00 weekday midday toll | \$1.25 minimum overnight toll
- \$2.75 maximum weekend toll | \$2.00 weekend shoulder | \$1.50 weekend off peak

- **Key Findings**

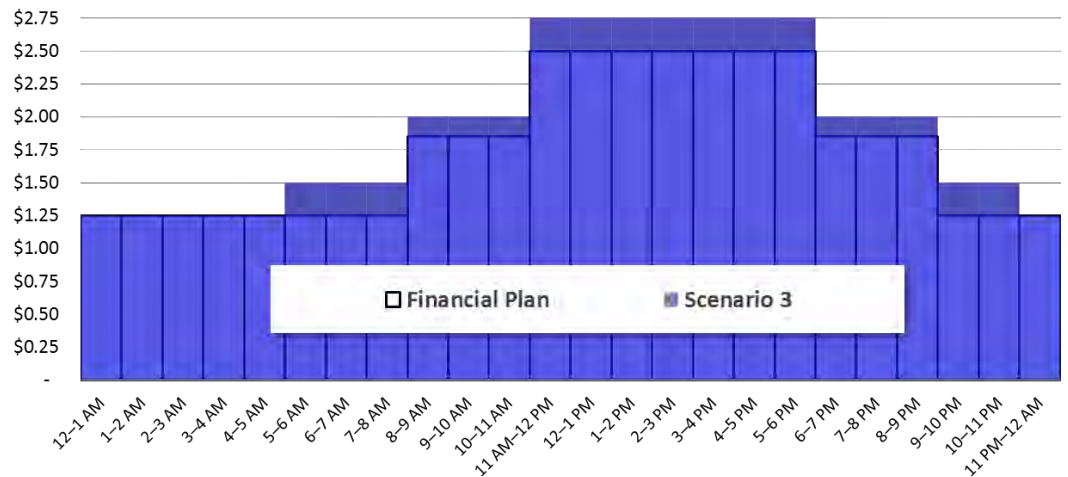
- **Meets financial sufficiency requirements**
- Forecast Period Impacts
  - -0.5% less toll transactions than Alternative A
  - +0.5% more net toll revenue than Alternative A
- FY 2017 Daily Impacts
  - AM and PM peak volumes rise by 0.5%, midday volume drops by 1.9%
    - Eastbound 3-4 PM volume up about 7% and speeds down about 2-3 mph
    - Westbound 6-8 PM volumes down about 11% and speeds up about 1-2 mph
  - No material impact on I-90
  - Weekend daily transactions decrease by about 4.2%

# Scenario 3 Toll Rate Schedules FY 2017+

## Weekday Good To Go! Toll Rates

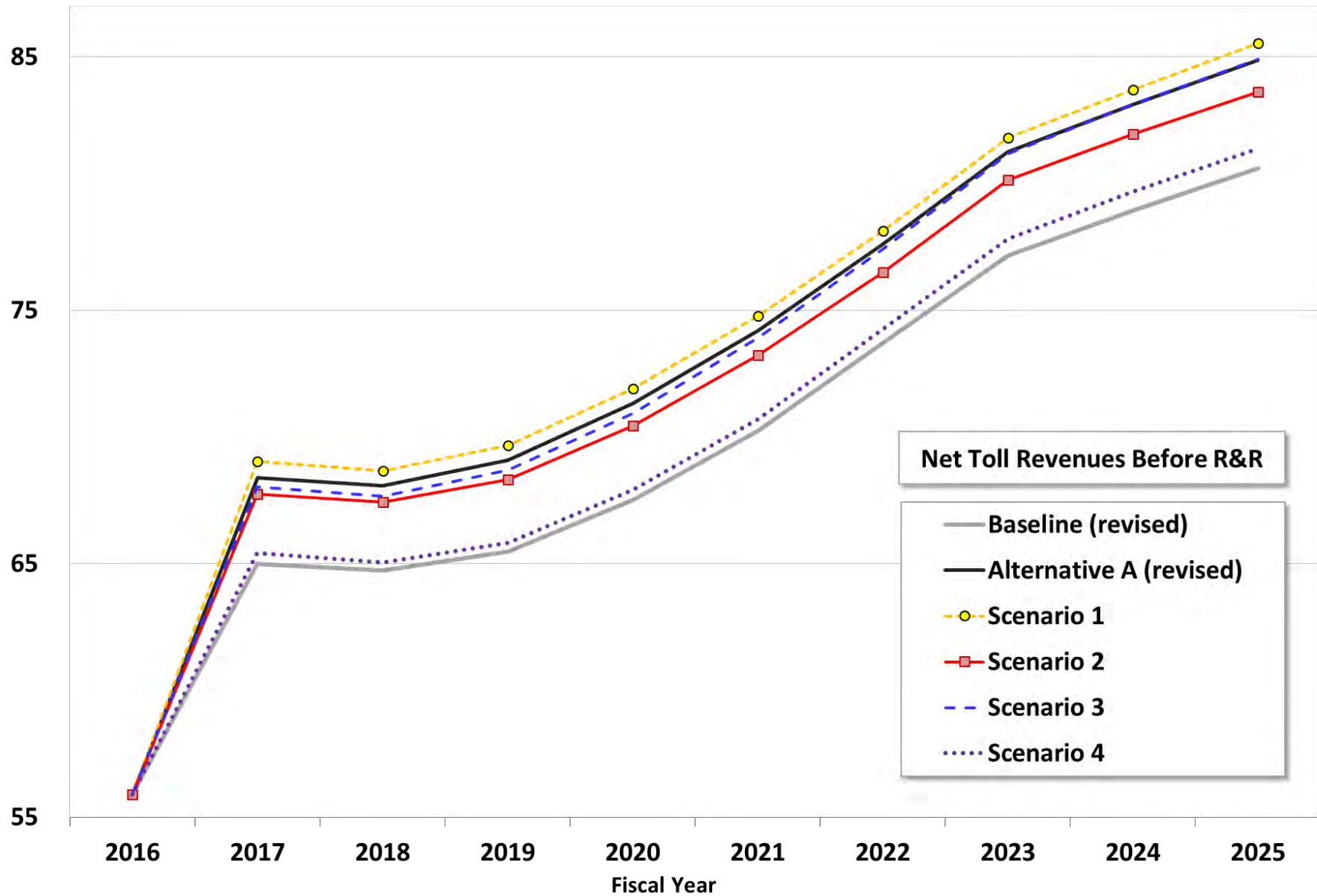


## Weekend Good To Go! Toll Rates



# Net Toll Revenue Forecasts by Case

\$ millions



**Net Toll Revenues Before R&R**

- Baseline (revised)
- Alternative A (revised)
- Scenario 1
- Scenario 2
- - Scenario 3
- ⋯ Scenario 4

# Spreading Toll Increase over FY 2017 and FY 2018

- **Is a multiple step approach to the ultimate toll schedule feasible?**
  - Preliminary analysis was conducted by case, splitting the toll increase into two parts, with approximately half in FY 2017 and the rest in FY 2018
- **Subcommittee requested further analysis of a two-step approach for Alternative A, and Scenarios 1 and 3 based upon a preliminary assessment**
  - The Baseline and Scenario 4 do not pass all sufficiency tests with a one step increase, therefore will not with multiple steps
  - Subcommittee opted to keep Scenario 2 as a one-step rate increase in FY 2017 based on the preliminary assessment and its smaller 10% increase
- **The Office of the State Treasurer concluded that a multiple-step increase is feasible for Alternative A and Scenarios 1, 2, and 3.**
  - Preliminary analysis indicates that the minimum FY 2017 weighted average toll increase required would be:
    - Approximately 6% both weekdays and weekends plus the addition of overnight tolling **[or]**
    - Approximately 8% on weekdays and 2% on weekends plus overnight tolling



# Analysis Summary

Forecast Alternative	3+ Carpool Exemptions <sup>1</sup>	Maximum Weekday Toll (Good To Go!)	Maximum Weekend Toll (Good To Go!)	Two Year Phased Increase Feasible?	Financial Sufficiency Findings (Office of the State Treasurer)
2015 Baseline Financial Plan Tolls   3+ Carpool Exemptions	Yes	\$4.35	\$2.50	No	✗ Does not meet 1.15x target debt service coverage on TIFIA loan in FY 2018
2015 Alternative A Financial Plan Tolls   No Carpool Exemption	No	\$4.35	\$2.50	Possibly	✓ Expected to meet all sufficiency requirements
Scenario 1 Uniform 15% Weekday Increase	No	\$4.50	\$2.50	Possibly	✓ Expected to meet all sufficiency requirements
Scenario 2 10% Weekday and Weekend Increase	No	\$4.30	\$2.65	Less Likely	✓ Expected to meet all sufficiency requirements
Scenario 3 Directionally Tailored   Flattened   \$4.25 Cap <sup>2</sup>	No	\$4.25	\$2.75	Possibly	✓ Expected to meet all sufficiency requirements
Scenario 4 3+ Carpool Exemptions   Higher Weekend Tolls	Yes	\$4.35	\$2.75	No	✗ Does not meet 1.15x target debt service coverage on TIFIA loan in FY 2018

<sup>1</sup> Transit and vanpools assumed to be exempt in all cases.

<sup>2</sup> For Scenario 3, quarter rounding was applied to the toll rates for vehicles with three or more axles calculated as multiples of the two-axle rates.

# Next Steps

- Public Input Meetings
- Confirmation from Office of the State Treasurer regarding feasibility of spreading the toll increase over two years
- Selection of recommended toll scenario and step-increase option
- Final investment grade traffic, gross revenue, and net revenue forecast results for the recommended scenario
- Office of the State Treasurer certification of selected scenario
- Toll rate adoption

# For questions or further information...

**Patty Rubstello, P.E.**  
Assistant Secretary, Toll Division  
206-464-1299 or [RubsteP@wsdot.wa.gov](mailto:RubsteP@wsdot.wa.gov)

# FY 2016 Q2 Forecast and Reported Toll Transactions

## Footnotes

1. Forecasted weekend construction related closures as provided by the November 2015 Forecast
2. Values based on the November 2015 Forecast
3. Reported values are based on total monthly transactions adjusted for non-revenue and duplicate transactions

# FY 2016 Q2 Forecast and Reported Gross Toll Revenue

## Footnotes

1. Forecasted weekend construction related closures as provided by the November 2015 Forecast.
2. Values based on the November 2015 Forecast.
3. Reported values are based on adjusted monthly revenue from the Unbilled Transaction Report.
4. Values based on the November 2015 Forecast. The forecasted adjusted gross toll revenue equals the gross toll revenue potential minus the adjustments.
5. Reported adjusted gross toll revenue corresponds to "tolling revenue" values reported in WSDOT annual financial statements. Values may change to align with year-end reports.

# FY 2016 Q2 Forecast and Reported Net Toll Revenue

## Footnotes

1. Values based on the November 2015 Forecast.
2. Reported net toll revenue prior to adjustments for payment of deferred sales tax, debt service, periodic facility repair & replacement costs and periodic toll equipment and customer service center repair & replacement costs. Values may be subject to change to align with year-end reports.