

# **SR 99 Tunnel Project Advisory Committee on Tolling and Traffic Management Update**

**Paula J. Hammond, P.E.**  
Secretary

**Steve Reinmuth**  
Chief of Staff

**Craig Stone, P.E.**  
Toll Division Director

**Linea Laird, P.E.**  
AWV Program Administrator

**Kimberly Farley**  
AWV Director of Operations

**Mark Bandy**  
Urban Corridors Traffic Engineer

**Washington State Transportation Commission**  
**October 17, 2012**

# Overview

## Today's topics:

- Review Advisory Committee on Tolling and Traffic Management round 1 scenarios and traffic modeling results.
- Provide overview of tolling revenue related to SR 99 work and ACTT round 1 results.
- Discuss policy questions raised by the ACTT.
- Next steps.

# Advisory Committee on Tolling and Traffic Management

- The committee's scope was established via:
  - Federal Highway Administration-issued Record of Decision.
  - Seattle Department of Transportation and WSDOT Memorandum of Agreement.
  - City of Seattle's resolution 31323.
- The committee will make advisory recommendations on strategies for:
  - Minimizing traffic diversion from the tunnel due to tolling.
  - Tolling the SR 99 tunnel.
  - Mitigating traffic diversion effects on city streets and I-5.

# ACTT Round One Scenarios Analyzed

- No toll and high toll (\$1 - \$4) are being studied as benchmarks.
- Scenario 1 (\$1 - \$3.25): Objective is to achieve funding target.
- Scenario 2 (\$0.75 - \$2.25): Objective is to reduce diversion.
- Scenario 3 (\$0.75 - \$2.50): Objective is to balance funding and diversion.
- Scenarios 1 – 3 each have time periods with no tolls such as overnight or weekends.

# Toll Rates by Time of Day - High Toll Benchmark

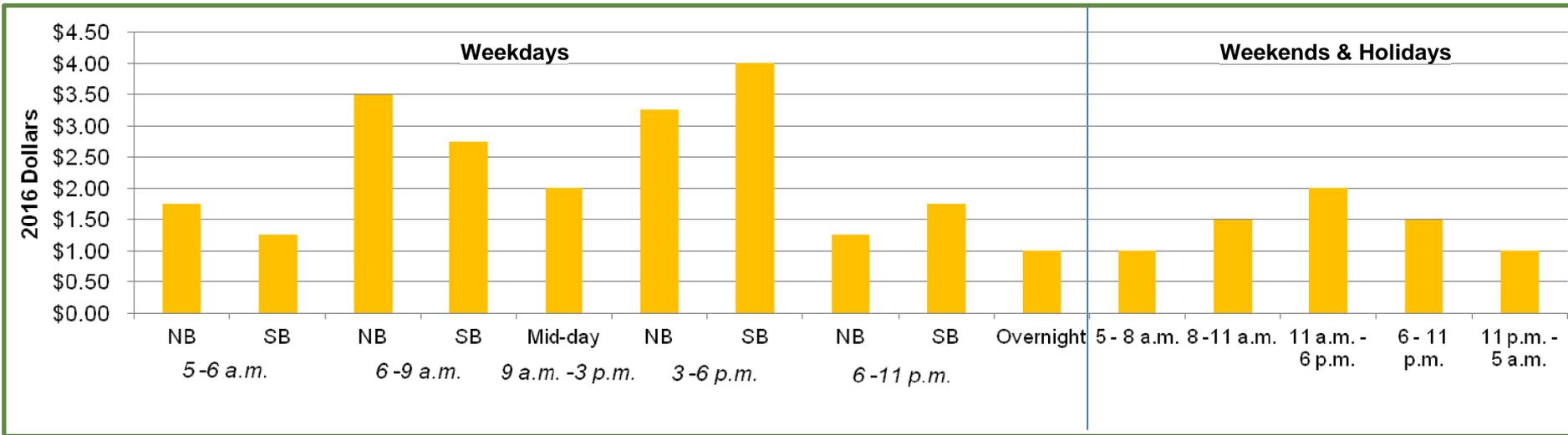


Chart represents *Good To Go!* rates. Pay by mail rates are approximately \$1.70 more.

# Toll Rates by Time of Day - by Scenario



- Scenario 3 includes a 20 percent one-time adjustment for all toll rates in July 2030.
- Scenarios 2 and 3 reduce the freight toll to a 1.25 multiplier for all trucks, regardless of size or axle count.
- Chart represents *Good To Go!* rates. Current pay by mail rates are approximately \$1.70 more.

# Initial Observations From Traffic Modeling

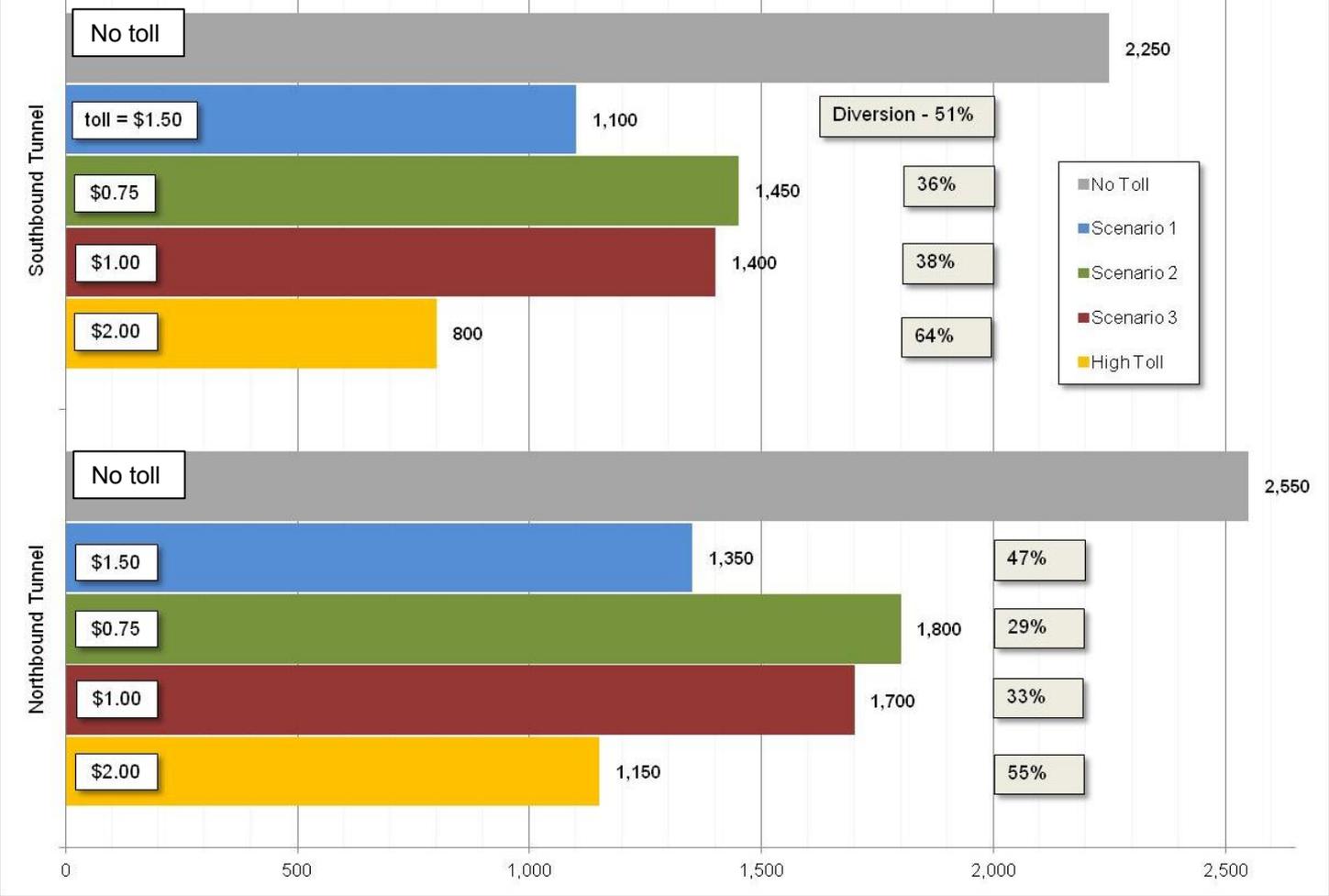
- Even modest mid-day tolls lead to diversion.
  - 30 – 50% of traffic leaves the tunnel.
- P.M. peak tolls caused some congestion in some areas and better performance in others.
- Higher southbound tolls resulted in higher diversion than we anticipated.
- Drivers making longer trips generally use the tunnel and pay the toll. Shorter, or in-city trips often use Alaskan Way or divert to other routes.

# SR 99 Corridor Through Downtown Seattle



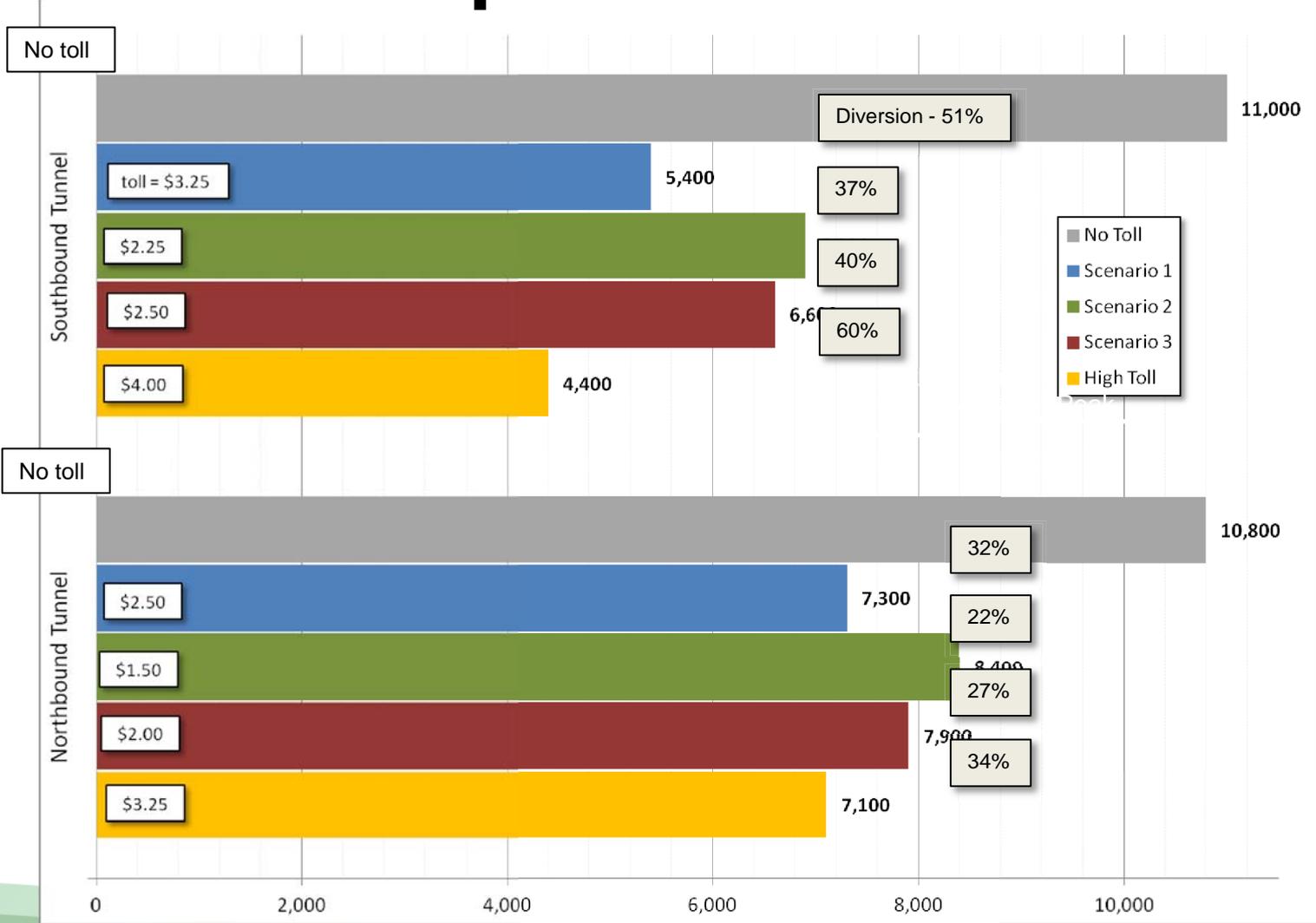
# 2017 Tunnel Volumes

## Mid-Day 1:30 – 2:30 p.m.



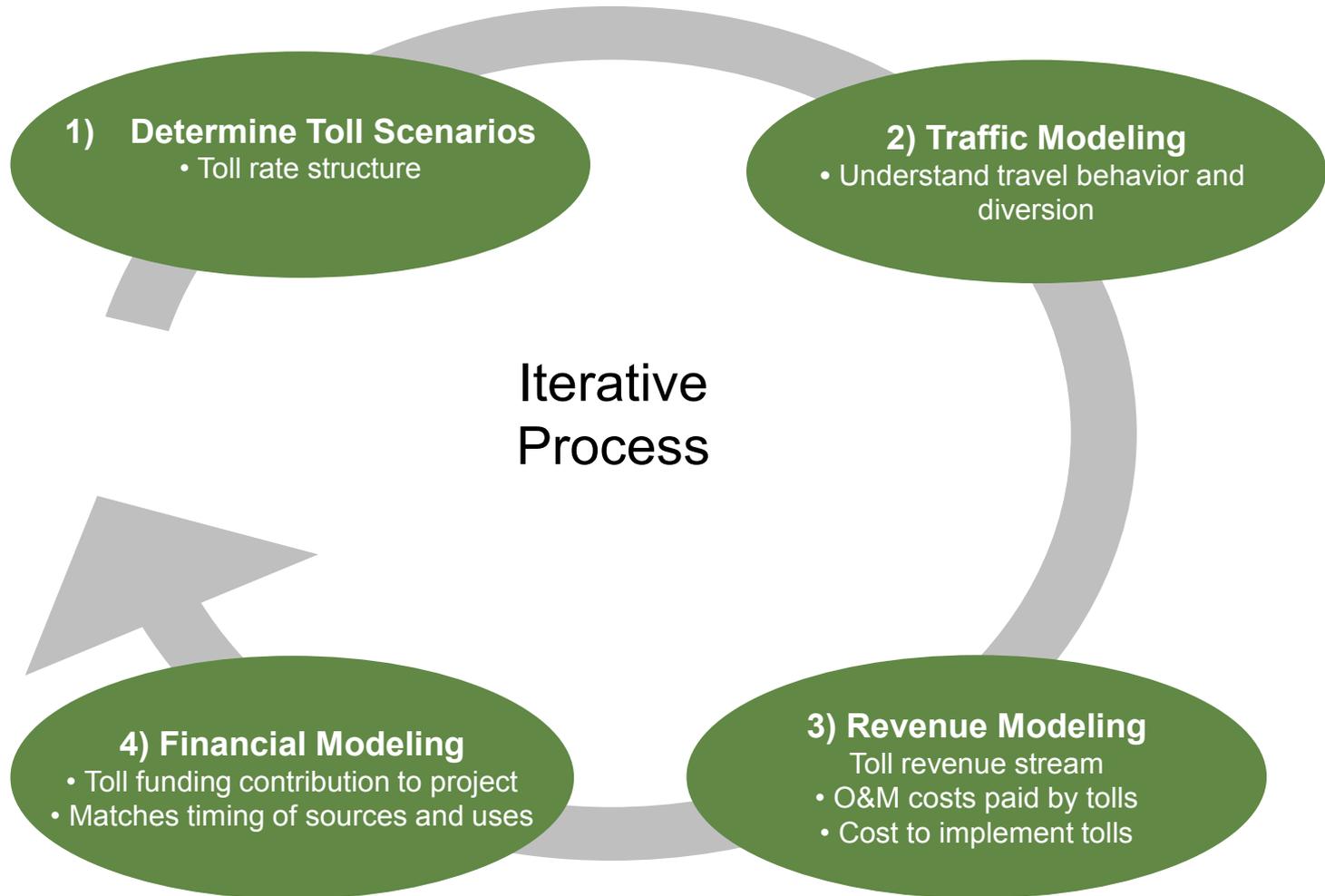
# 2017 Tunnel Volumes

## Peak Period 3 – 6 p.m.



# Tolling Revenue Overview and Round 1 Revenue Results

# Four-Step Planning Process



# Toll Revenues Cover Various Costs

- Framework for walking through how toll revenues would be used.

	Revenue Collected from Tolls	Toll Collection Costs	Tunnel Ownership: Operations and Maintenance	Tunnel Ownership: Repair and Replacement	Facility Insurance Costs	Net Revenue
High Toll Benchmark						
Scenario 1						
Scenario 2						
Scenario 3						

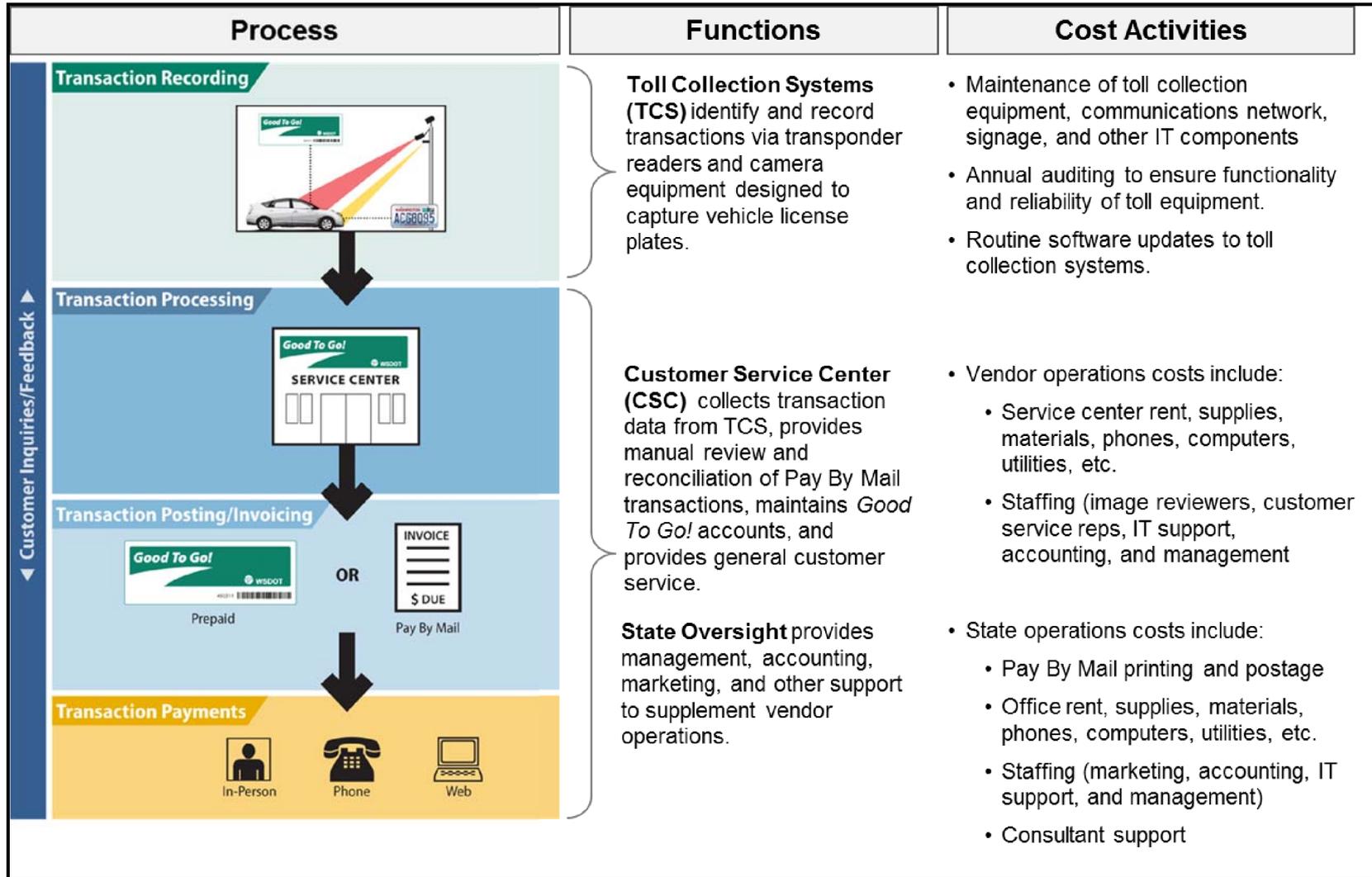
# Toll Collection Costs

Types of costs include:

- Vendors: Toll collections equipment on SR 99 and statewide customer service.
- Credit card fees.
- Postage for mailing toll invoices.
- State support staff: Toll operations including information technology, accounting and audit, marketing, customer service and program management.
- Maintenance of toll collection systems.



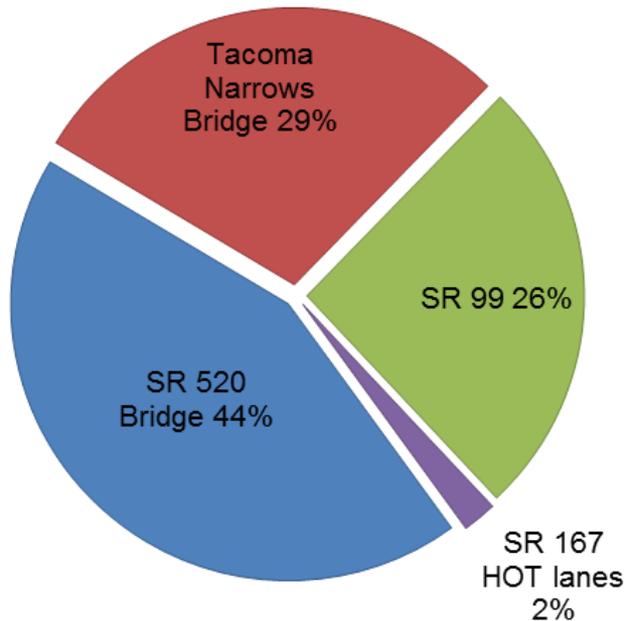
# Toll Collection Costs



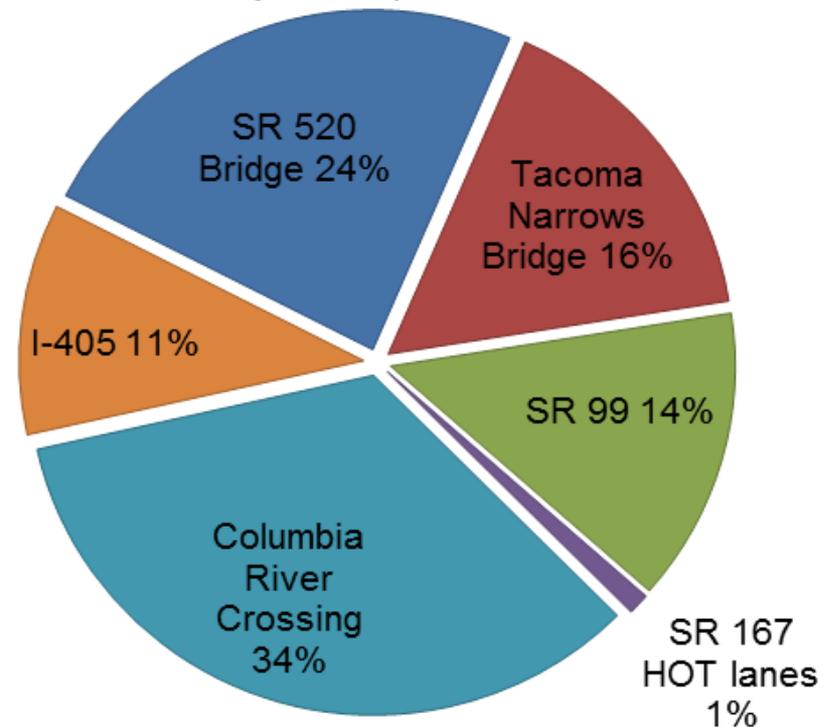
# Allocating Costs Among WSDOT Toll Facilities

Customer service center and state oversight costs of toll collection

Existing and SR 99



All Legislatively Authorized



# Tunnel Ownership Costs: Operations and Maintenance

Types of operations and maintenance costs include:

- Incident response teams.
- Maintenance of lighting; heating, ventilation and air conditioning; and electrical systems.
- Maintenance of fire, life and safety systems.



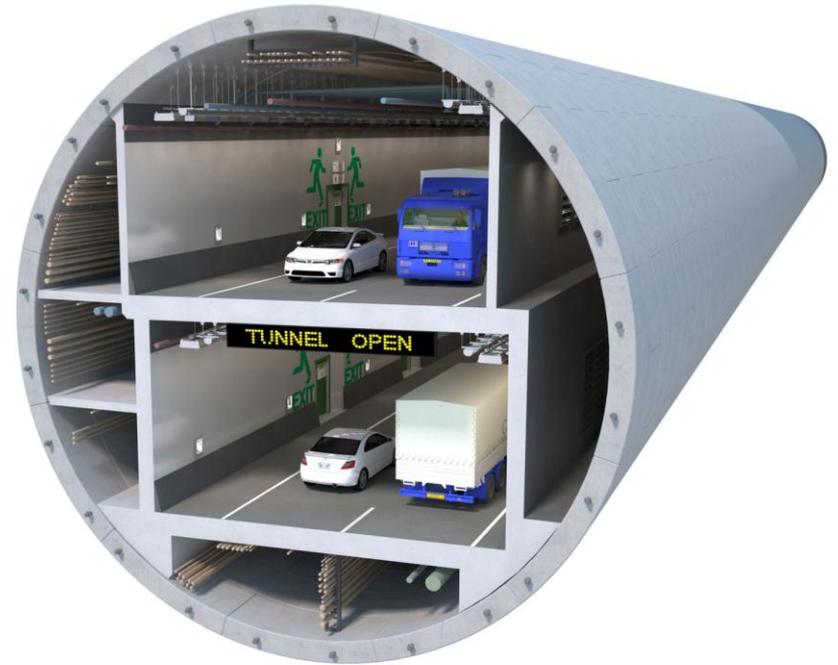
*WSDOT's tunnel washing machine.*

# Tunnel Ownership Costs: Repair and Replacement

Policymakers and requirements of the bond market help determine how much money is set aside for long-term repairs.

Types of costs include:

- Repaving and restriping.
- Replacement of fans and HVAC systems.
- Electrical and software upgrades for fire, life and safety systems.



# Facility Insurance Costs

Insurance is necessary to:

- Protect against potential loss of revenue if the tunnel and tolling had to be shut down temporarily.
- Provide funding for repairs in the event of a catastrophic loss.

# Revenue Results

# Minimum and Maximum Tolls by Scenario

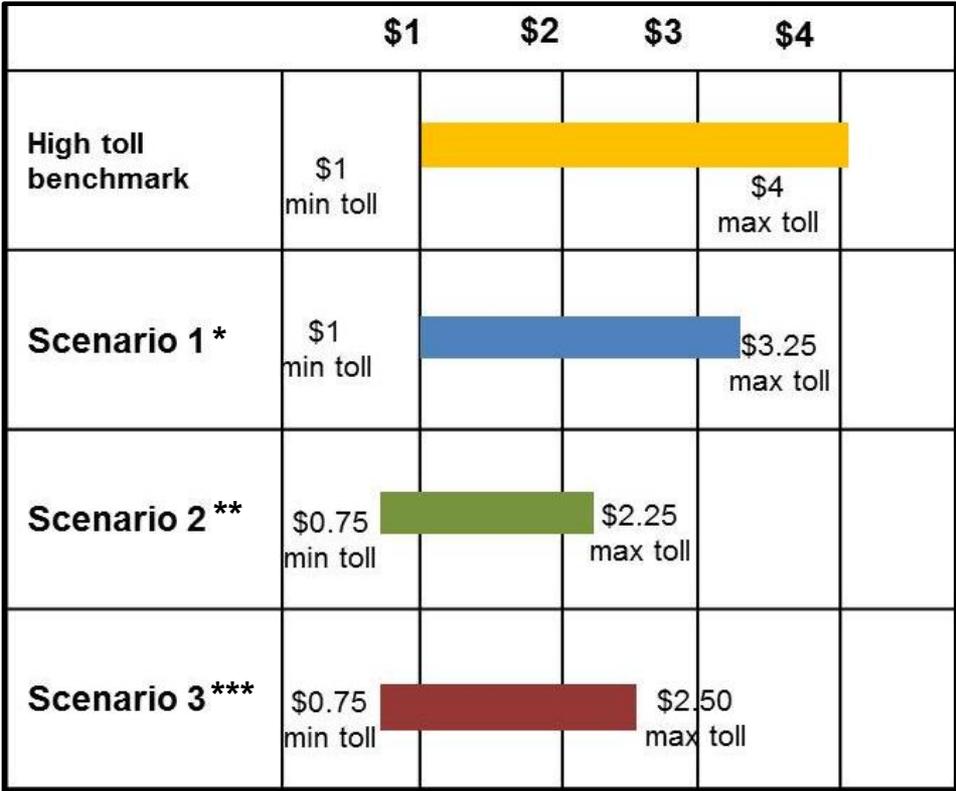


Chart represents *Good To Go!* rates. Pay by mail rates are approximately \$1.70 more. Scenarios 2 and 3 reduce the freight toll to a 1.25 multiplier for all trucks, regardless of size or axle count.

\* No tolls from 11 p.m. – 5 a.m.

\*\* No tolls from 7p.m. – 5 a.m. and no weekend tolls

\*\*\* No tolls from 11 p.m. – 5 a.m. and no weekend tolls. Includes a 20 percent one-time adjustment for all toll rates in July 2030.

# Preliminary Revenue Results for High Toll and Scenarios 1 - 3

	Revenue Collected from Tolls*	Toll Collection Costs**	Tunnel Ownership: Operations and Maintenance	Tunnel Ownership: Repair and Replacement	Facility Insurance Costs***	Net Revenue
<b>High Toll Benchmark</b>	\$1,340	\$220 to \$280	\$170	\$180	\$80	\$630 to \$690
<b>Scenario 1</b>	\$1,220	\$230 to \$300				\$490 to \$560
<b>Scenario 2</b>	\$770	\$200 to \$260				\$80 to \$140
<b>Scenario 3</b>	\$980	\$210 to \$260				\$290 to \$340

Numbers represent estimates for approximately 30 years. Costs in millions of dollars.

\* After adjustments for fees, credits and uncollectible accounts.

\*\* Varies based on number of operational toll facilities.

\*\*\* Insurance study in progress.

# ACTT Toll Revenue / Funding Assumptions

## Revenue

- No toll rate escalation assumed for financial planning purposes. Toll rate when the tunnel opens could be the same as the toll rate in 2030.
- Exception: Scenario 3 has a one-time, 20% toll-rate increase in 2030.
- Toll collection and tunnel ownership costs will increase over time.

## Financing

- Detailed financial analysis by the Office of the State Treasurer has not yet been completed.
- Net present value (NPV) analysis by the Office of the State Treasurer has not yet been completed.
  - Interest rate: 6.5%
  - Timing: Bond proceeds would be needed in 2015.
  - Coverage ratio: 1.3 times (net revenues must be at least 130% of debt service).

# Preliminary Revenue Results for High Toll and Scenarios 1 - 3

	Net Revenue*	Potential Financing and Coverage**	Potential Project Funding**
<b>High Toll Benchmark</b>	\$630	\$380 to \$420	\$210 to \$250
<b>Scenario 1</b>	\$490	\$280 to \$320	\$170 to \$210
<b>Scenario 2</b>	\$80		
<b>Scenario 3</b>	\$290	\$140 to \$180	\$110 to \$150

Costs in millions of dollars.

Likely couldn't finance scenario 2 for tunnel project funding.

\* The low end of the net revenue range was assumed for financial calculations.

\*\* This is a preliminary calculation and requires analysis by the Office of the State Treasurer.

# ACTT Policy Questions From Sept. 19 Meeting

- What does toll revenue pay for and at what funding level?
- Could toll rates escalate over time to match inflation and cover costs?
- How should toll collection costs be allocated among state toll facilities?
- What should the toll rate structure look like: single point or multi-point toll, shoulder rates, freight toll rate?
- Is there a segment or system-wide tolling study?
- Could incentive programs be created?

# Draft ACTT Work Plan

Sept. 2012	Oct. 2012	Nov. 2012	Dec. 2012	Jan. 2013	Feb. 2013	March 2013	April 2013
<b>Analysis</b>							
<p><b>Sept. 19</b> Review round 1 revenues, discuss round 2 scenarios</p>				<p><b>Early Jan.</b> Review round 2 scenario traffic results</p>	<p><b>Early Feb.</b> Review round 2 revenue results, discuss mitigation</p>		
	<p><b>Nov. 1 and Nov. 14</b> Agree on round 2 scenarios, begin to discuss mitigation</p>						
		<b>Mitigation subgroup</b>					
		<p>Meetings as needed. Bring recommendations to committee meetings.</p>					
						<b>Recommendations</b>	
						<p><b>March / April</b> Discuss recommendations; release recommendations</p>	

# Coordination with Transportation Commission

- Coordinate with Commission staff prior to each ACTT committee meeting.
- Commission staff attend ACTT committee meetings.
- Commission coordination:
  - Oct. 19, 2011 meeting
  - Feb. 21, 2012 meeting
  - May 23, 2012 meeting
  - July 17, 2012 meeting
  - Oct. 17, 2012 meeting
  - Dec. 11-12, 2012 meeting
  - 2013 meetings

# Questions?



**Website:**

[www.alaskanwayviaduct.org](http://www.alaskanwayviaduct.org)

**Email:**

[viaduct@wsdot.wa.gov](mailto:viaduct@wsdot.wa.gov)

**Hotline:**

1-888-AWV-LINE