ACTT Purpose

- 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.
Overview

Previous discussions:
• Traffic modeling results for scenarios 1 – 3, high benchmark.

Today’s topics:
• Review round 1 scenarios and traffic modeling results.
• Tolling revenue overview and round 1 results.
• Small group discussion.
• Introduction to potential round 2 scenarios / committee feedback.
• Committee recommendations and overall meeting schedule.
ACTT recommends strategies for tolling the SR 99 tunnel and minimizing and mitigating diversion.
Review ACTT Round 1 Scenarios
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.
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.
2017 Tunnel Volumes
Mid-Day 1:30 – 2:30 p.m.

- **Southbound Tunnel**
  - No toll: 2,250
  - toll = $1.50: 1,100
  - $0.75: 1,450
  - $1.00: 1,400
  - $2.00: 800
  
  Diversion - 51%

- **Northbound Tunnel**
  - No toll: 2,550
  - $1.50: 1,350
  - $0.75: 1,800
  - $1.00: 1,700
  - $2.00: 1,150

  Diversion - 47%
2017 Tunnel Volumes
Peak Period 3 – 6 p.m.

Southbound Tunnel
- No toll: 5,400 vehicles
- $2.25: 6,900 vehicles
- $2.50: 6,600 vehicles
- $4.00: 4,400 vehicles

Northbound Tunnel
- No toll: 7,300 vehicles
- $2.50: 8,400 vehicles
- $1.50: 7,900 vehicles
- $2.00: 7,100 vehicles
- $3.25: 7,100 vehicles

Diversion - 51%
Tolling Revenue Overview and Round 1 Revenue Results
Four-Step Planning Process

1) Determine Toll Scenarios
   • Toll rate structure

2) Traffic Modeling
   • Understand travel behavior and diversion

3) Revenue Modeling
   • Toll revenue stream
     • O&M costs paid by tolls
     • Cost to implement tolls

4) Financial Modeling
   • Toll funding contribution to project
   • Matches timing of sources and uses

Iterative Process
Funding Goal for Tunnel Project

- Washington State Legislature directed WSDOT fund SR 99 tunnel construction with bond proceeds from tolling.
- SR 99 tunnel construction funding need: $200 million.
- Mitigation projects would require an additional funding source.
Toll Revenues Cover Various Costs

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

<table>
<thead>
<tr>
<th>Revenue Collected from Tolls</th>
<th>Toll Collection Costs</th>
<th>Tunnel Ownership: Operations and Maintenance</th>
<th>Tunnel Ownership: Repair and Replacement</th>
<th>Facility Insurance Costs</th>
<th>Net Revenue</th>
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</thead>
<tbody>
<tr>
<td>High Toll Benchmark</td>
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<tr>
<td>Scenario 1</td>
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<td>Scenario 2</td>
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<tr>
<td>Scenario 3</td>
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</table>
Revenue Collected From Tolls

- Revenue models use traffic model projections to calculate how much toll revenue can be raised over a period of time.
- Results are estimates for approximately 30 years.

Toll rate $\times$ Transactions $\times$ Period of time $= \text{Tolls collected}$
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.
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.
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.
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

<table>
<thead>
<tr>
<th>Scenario</th>
<th>$1 min toll</th>
<th>$2 min toll</th>
<th>$3 min toll</th>
<th>$4 min toll</th>
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<tbody>
<tr>
<td>High toll benchmark</td>
<td>$1 min toll</td>
<td>$2 min toll</td>
<td>$3 min toll</td>
<td>$4 min toll</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>$1 min toll</td>
<td>$2 min toll</td>
<td>$3 min toll</td>
<td>$4 min toll</td>
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<tr>
<td>Scenario 2</td>
<td>$0.75 min toll</td>
<td>$2.25 max toll</td>
<td>$3.25 max toll</td>
<td>$4 max toll</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>$0.75 min toll</td>
<td>$2.50 max toll</td>
<td>$3.25 max toll</td>
<td>$4 max toll</td>
</tr>
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</table>

Chart represents Good To Go! rates. Pay by mail rates are approximately $1.70 more.
### Preliminary Revenue Results for High Toll and Scenarios 1 - 3

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

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.
• Construction funding is needed up front.
• Toll revenues are generated over time once the tunnel is completed and operational.
• Need to advance future toll revenues into the construction period by issuing toll-backed bonds.
Conceptual Financing of Net Toll Revenues

- Financing allows future toll revenues to contribute to construction.
- Borrowed funds are repaid from net toll revenues.

Future toll revenues are leveraged to help fund construction. Borrowed construction funds are repaid from net toll revenues with interest. A portion of toll revenues must be set aside to provide coverage each year; however, accumulated coverage may be used to pay for periodic R&R costs.
Bonding Considerations for WSDOT Projects

• Project-specific options:
  • Triple pledge bonds.
  • Toll revenue bonds.
  • Grant Anticipation Revenue Vehicle (GARVEE) bonds.
  • Transportation Infrastructure Finance and Innovation Act (TIFIA) loan.

• WSDOT also uses bonds backed by motor vehicle fuel tax which generally provide funding for a variety of projects.

• Bond covenants typically require the owner to pay for operations and maintenance and insure the facility and revenue stream.

• Requirements / guidance from the bond market, State Finance Committee, federal or state agencies.
Assumptions for ACTT Revenue Calculations

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.
  - Scenario 3 has a one-time, 20 percent toll-rate adjustment in 2030.
- Toll collection and tunnel ownership costs will increase over time.

Financing

- For purposes of net present value calculations:
  - Interest rate: 6.5%
  - Timing: Bond proceeds would be needed in 2015.
  - Coverage ratio: 1.3. This shows we can “cover” our payments.
## Preliminary Revenue Results for High Toll and Scenarios 1 - 3

<table>
<thead>
<tr>
<th></th>
<th>Net Revenue*</th>
<th>Potential Financing and Coverage**</th>
<th>Potential Project Funding**</th>
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<td>High Toll Benchmark</td>
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<td>$380 to $420</td>
<td>$210 to $250</td>
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<tr>
<td>Scenario 1</td>
<td>$490</td>
<td>$280 to $320</td>
<td>$170 to $210</td>
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<td>$80</td>
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<tr>
<td>Scenario 3</td>
<td>$290</td>
<td>$140 to $180</td>
<td>$110 to $150</td>
</tr>
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</table>

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.
Small Group Discussion
Small Group Discussion Overview

- Break into three groups to continue dialogue about toll revenues.
- Each group will have 30 minutes to cover one of the following topics:
  - Toll collection costs.
  - Tunnel ownership costs.
  - Financing costs.
- Each group should elect a committee member to report out.
- 30 minutes for group report outs and questions.
- Each group will have technical staff to answer questions.
- Each group will have someone to take notes.
Small Group Report Out
Introduction to Potential Round 2 Scenarios
Committee Schedule and Recommendations
## Draft ACTT Work Plan

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### Analysis
- **Sept. 19**: Review round 1 revenues, discuss round 2 scenarios
- **Oct. 31 or Nov. 1**: Agree on round 2 scenarios, begin to discuss mitigation
- **Early Jan.**: Review round 2 scenario traffic results
- **Early Feb.**: Review round 2 revenue results, discuss mitigation

### Mitigation subgroup
- Meetings as needed. Bring recommendations to committee meetings.

### Recommendations
- **March / April**: Discuss recommendations; release recommendations
Closing: Next Steps
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