JTC Freight Investment Study
Third Stakeholder Group Meeting

presented to
Freight Financing Study Stakeholder Committee

presented by
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October 25, 2007

Transportation leadership you can trust.
Agenda

- Welcome and Opening Remarks (1:30-1:40)
- Self-Introductions (1:40-1:45)
- Recap of Study Objectives and Progress to Date (1:45-2:00)
- Freight Transportation Flows and Bottlenecks (2:00-2:30)
- Inventory of Candidate Projects (2:30-2:45)
- BREAK—15 minutes (2:45-3:00)
- WSDOT Freight Systems Division Strategic Planning Update (3:00-3:10)
- Example Processes to Evaluate & Prioritize Freight Investments (3:10-3:40)
- Discussion of Select Freight Projects in Washington State (3:40-4:20)
- Schedule, Next Steps (4:20-4:30)
- Adjournment
Recap of Study Objectives & Progress to Date
Study Objectives and Products

Study Objectives:

• Review the state’s current transportation finance structure and planned transportation system infrastructure improvements
• Examine institutional arrangements for identifying freight congestion relief projects
• Identify and evaluate funding sources to improve freight movement in the state

Study Products:

• Preferred mechanisms for freight project identification, prioritization, and coordination
• Finalize a process for identification of beneficiaries and apportionment of costs and funding
• Specific options and recommendations for the Legislature to fund existing and future freight mobility projects
Recap of Study Objectives & Progress to Date

Study Progress to Date

Delivered Draft Working Paper for Tasks 1-4:
• Funding sources at the Federal, state, and local levels
• Taxes and fees paid by the freight industry
• Case study examples of dedicated revenue streams for freight investment and how specific projects were funded
• Options for re-directing or leveraging taxes and fees

Held two Stakeholder Group meetings (Aug 9; Sep 26)

Held first Policy Group meeting (Sep 11)

Interviewed identified stakeholders on key issues and study expectations
Recap of Study Objectives & Progress to Date
Guiding Principles for Freight Project Funding

- Projects for which the costs exceed the expected benefits should not be funded
- Project level benefit-cost analysis should provide information for negotiations between stakeholders, but leave a sufficient degree of flexibility to allow for larger strategic goals
- Funding packages should be structured in accordance with the expected benefits to the state-wide population, local jurisdictions, and the private sector
Recap of Study Objectives & Progress to Date
Federal Funding Apportionments for WA, FY2005-09

Nominal Dollars (in Millions)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Dollars (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Bridge</td>
<td>3.7%</td>
<td>750</td>
</tr>
<tr>
<td>Surface Transportation Program</td>
<td>1.9%</td>
<td>600</td>
</tr>
<tr>
<td>National Highway System</td>
<td>1.8%</td>
<td>500</td>
</tr>
<tr>
<td>Interstate Maintenance</td>
<td>1.9%</td>
<td>450</td>
</tr>
<tr>
<td>High Priority Projects</td>
<td>1.9%</td>
<td>400</td>
</tr>
<tr>
<td>Projects of National &amp; Regional Significance</td>
<td>12.4%</td>
<td>300</td>
</tr>
<tr>
<td>Congestion Mitigation &amp; Air Quality</td>
<td>1.8%</td>
<td>250</td>
</tr>
<tr>
<td>Coordinated Border Infrastructure</td>
<td>5.9%</td>
<td>200</td>
</tr>
<tr>
<td>Highway Railroad Grade Crossing</td>
<td>1.9%</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: Federal Highway Administration. Percentages reflect % of total program funding apportioned to Washington State (Washington State has 2.1% of the nation’s total population). Washington State received no Federal funding from programs that include Transportation Improvement and National Corridor Infrastructure Improvement.
Recap of Study Objectives & Progress to Date
State Revenue Projections, 2007-2023 (in millions)

Motor Vehicle Fuel Taxes
$24,521

Miscellaneous Revenues
$179

Driver Licenses and Other Driver-Related Fees
$1,422

Vehicle Sales Tax
$764

Aeronautics Revenues
$55

Rental Car Tax
$505

Toll Revenue
$1,328

Ferry Fares
$3,277

Licenses, Permits, and Fees
$8,539

Sixteen-Year Total: $40,589 Million  (60% from motor vehicle fuel taxes; 21% from licenses, permits, and fees)

September 2007 Transportation Revenue Forecasts.

Note: Revenues are in Millions of Dollars.
Recap of Study Objectives & Progress to Date
Local Transportation Revenue, FY 2005

- **Transit Taxes**: $663 million
- **Property Tax Road Levy**: $367 million
- **Tax for High Capacity Transportation**: $306 million
- **Commercial Parking Tax**: $5 million

Not shown: Border Area Fuel Tax ($138,000).
## Recap of Study Objectives & Progress to Date

**Case Studies - Large Funding Programs**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Type of Fee/Fund</th>
<th>Funds Raised</th>
<th>Fee Structure</th>
<th>Positives</th>
<th>Potential Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oregon Transport Investment Act (I, II, III)</strong></td>
<td>Vehicle Title and Registration Fee Increase</td>
<td>$2.46 billion in bonds</td>
<td>Fee increases across most title and registrations</td>
<td>Clear link between fees and benefits</td>
<td>Not dedicated to freight</td>
</tr>
<tr>
<td><strong>California Trade Corridor Improvement Fund</strong></td>
<td>General Obligation Bonds</td>
<td>$2 billion in bonds</td>
<td>Backed by 30-years general fund payments</td>
<td>No tax increases required</td>
<td>No additional revenue</td>
</tr>
<tr>
<td><strong>Florida’s Strategic Intermodal System</strong></td>
<td>Not a new funding source, but a prioritizing method</td>
<td>~$100 mil to $2 bil/ year to SIS projects</td>
<td>From general funding sources: motor fuel tax, vehicle registration</td>
<td>Puts emphasis on strategic freight projects</td>
<td>No additional revenue</td>
</tr>
<tr>
<td><strong>Germany Toll Collect</strong></td>
<td>Truck Distance-Based User Fee</td>
<td>~$6 billion/year</td>
<td>Varies by axles/emissions, Average = $0.26/mile</td>
<td>Recoup wear and tear, foreign carrier costs</td>
<td>Division of funds between modes, EU approval</td>
</tr>
</tbody>
</table>
## Recap of Study Objectives & Progress to Date

### Case Studies – Freight Project Funding

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Innovative Financing Tool</th>
<th>Amount</th>
<th>Total Cost</th>
<th>Structure/Rationale/Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda Corridor, So. California</td>
<td>Railroad User Fees to repay bonds</td>
<td>$1.5 billion</td>
<td>$2.4 billion</td>
<td>$18.04 per loaded TEU, plus other fees. Shippers benefit, Wide base</td>
</tr>
<tr>
<td>Reno, Nevada Transportation Rail Access Corridor</td>
<td>Sales Tax (0.125%), Special Assessment, Railroad Equity</td>
<td>$50.5 million</td>
<td>$280 million</td>
<td>DBOM Contract, FDOT payment for maintenance and operations</td>
</tr>
<tr>
<td>Port of Miami, FL Tunnel</td>
<td>Developer Equity, Possibly Tolling, Private sector carries</td>
<td>&gt; $1 billion</td>
<td></td>
<td>TxDOT one-time $25 million concession, share toll revenues</td>
</tr>
<tr>
<td>Trans Texas Corridor I-35</td>
<td>Developer Equity, Tolling, Private sector risk</td>
<td>$1.3 billion</td>
<td></td>
<td>Minimum annual payments; sliding scale fee structure based on volume</td>
</tr>
<tr>
<td>Shellpot Bridge Replacement (Delaware)</td>
<td>Rail Car Fees to repay loan</td>
<td>$8.9 million</td>
<td>$13.5 million</td>
<td>Based on private sector economic benefit</td>
</tr>
<tr>
<td>Chicago Region Environ &amp; Transp Efficiency Program</td>
<td>Railroad Equity</td>
<td>Phase 1: $100 million</td>
<td>Phase 1: $330 million</td>
<td></td>
</tr>
</tbody>
</table>
Recap of Study Objectives & Progress to Date
Case Studies - NEW

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Type of Fee/Fund</th>
<th>Funds Raised</th>
<th>Fee Structure</th>
<th>Positives</th>
<th>Potential Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington State’s FAST</td>
<td>Prioritizing and sharing funding</td>
<td>$568 million in 10 years, need $300 million more</td>
<td>General sources: FMSIB, WSDOT, Federal Gov’t, UP, BNSF, Ports, TIB</td>
<td>Money to projects that are ready, strategic</td>
<td>No additional revenue</td>
</tr>
<tr>
<td>Oregon State’s Connect Oregon</td>
<td>Bonds backed by State Lottery Funds</td>
<td>2005- $100 million in bonds, 2007- $100 million</td>
<td>Revenues from the state lottery</td>
<td>New revenue stream</td>
<td>No link between costs and benefits, Not freight specific</td>
</tr>
</tbody>
</table>
Recap of Study Objectives & Progress to Date
Washington State’s Freight Action Strategy (FAST)

- Corridor-based approach for strategic funding. Federal Program funds were allowed to move to projects that were ready for construction

- Partnership of 26 stakeholders:
  - FHWA; WSDOT; FMSIB; TIB; PSRC
  - Ports of Everett, Seattle, Tacoma
  - King, Pierce and Snohomish Counties; 16 cities
  - Union Pacific and BNSF Railways; Washington Truckers Association

- Ten projects completed since 1998 at cost of $568 million. About $300 million is needed to complete remaining 15 projects
Recap of Study Objectives & Progress to Date
Washington State’s FAST (continued)

Initial Project Selection:
• Strategic approach to identify high-priority grade separation projects
• Evaluation criteria defined: General Mobility; Freight Mobility; Safety; Communities/Environment; Cost-Effectiveness
• All major grade crossings in the corridor were evaluated using truck traffic data, rail traffic simulation model, safety data, and emissions data. Projects were prioritized based on evaluation criteria results

Partners endorsed following funding participation goals:
• Federal funding: 40%
• State funding: 40%. Trucking community contributes to this percentage through fuel taxes and fees
• Ports of Seattle & Tacoma: 7%
• UP & BNSF: 3%
• Agencies responsible for project implementation: 10%

Actual participant funding shares vary by project based on specific project benefits
Freight Transportation Flows & Bottlenecks
Peak-Hour State Highway Congestion, 2005

Analysis/Map Developed by:
Systems Analysis and Program Development
October 2007

These conditions do not reflect the impact of congestion associated with local roads; additional impacts associated with ramps, interchanges, weather, special events, construction, collisions or incidents.

Washington State Department of Transportation

Operates Less Than Efficiently
Operates Efficiently
Freight Transportation Flows & Bottlenecks
Projected Peak-Hour State Highway Congestion, 2030

Analysis/Map Developed by:
Systems Analysis and Program Development
October 2007

These projected future conditions reflect the completion of the mobility projects included in both the 2008 "PaveIt" funding package and the fully funded projects included in the 2006 Transportation Partnership Act (TPA). These projections do not reflect the impact of congestion associated with local roads, additional impacts associated with ramps, interchanges, weather, special events, construction, collisions or incidents.

Washington State Department of Transportation

Operates Less Than Efficiently
Operates Efficiently
Freight Transportation Flows & Bottlenecks
State Highway System Bottlenecks from 2007 to 2026
Freight Transportation Flows & Bottlenecks
Rail Capacities, 2006

Washington State
Railroad Main Lines - 2006 Average
Train Counts and Capacities
Freight Transportation Flows & Bottlenecks

Rail Bottlenecks
Inventory of Candidate Projects
Sources of Freight Projects

- State Legislature
- WSDOT
- Freight Mobility Strategic Investment Board (FMSIB)
- Washington State’s Freight Action Strategy (FAST)
Inventory of Candidate Projects
Highway
Inventory of Candidate Projects
Rail
Inventory of Candidate Projects
Intermodal/Grade Separations
Inventory of Candidate Projects
Project Beneficiaries (examples)

- SR 519 Intermodal Access Project:
  - WSDOT; City of Seattle; King County; Port of Seattle; Sound Transit rail and bus routes
  - Trucks from I-5 and I-90 to/from the port, rail yards and Duwamish industrial
  - BNSF Railway; Qwest Field & Safeco Field interests

- SR 167, I-5 to SR 509 to Port of Tacoma:
  - WSDOT; Port of Tacoma; City of Tacoma; City of Fife
  - Regular port freight shippers like Hyundai; Businesses located on port property; Trucks moving in and out of the port area
Inventory of Candidate Projects
Project Beneficiaries  (examples, continued)

- Port of Vancouver Rail Access and Track Extension:
  - Port of Vancouver; City of Vancouver; Clark County
  - BNSF Railway; UP Railroad
  - Agricultural shippers; Wind farm businesses

- U.S. 12/SR 124 Interchange:
  - WSDOT; Port of Walla Walla; Federal partnership funds
  - Tyson Fresh Meats; Broetje Orchards; Boise Paper Solutions; RailEx; Pacific Grain; Northwest Grain Growers; Cruise West buses; Walla Walla area agricultural trucks
Break
Process for Identifying & Ranking Priorities
Objectives, Existing Concepts, and Issues

Objectives

Private Sector
- Direct participation
- Limit participation
- Close nexus
- Short-term Implementation
- Competitively neutral

Local Jurisdiction
- Limited control
- Connected to development goals
- Community outreach
- Environmental & safety mitigation

State Government
- New private money
- Funding liabilities
- Private & federal leverage
- Targeted economic benefits

Identify Needs
- Prescreening
- Threshold Criteria
- Modal Interaction
- Validation

Project Nomination
- Formal Evaluation
- Scoring

Funding Package & Finance

Project Ranking

Project Implementation & Phasing
Example Processes to Evaluate and Prioritize Freight Investments

- FMSIB
- Washington State Rail Capacity & Systems Needs Study
- Office of Financial Management (OFM) Input-Output Model
- Out of State Examples
### Example Processes
#### FMSIB Project Evaluation Criteria

<table>
<thead>
<tr>
<th>Project Evaluation Criteria</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Freight Mobility for the Project Area</td>
<td>35 Max</td>
</tr>
<tr>
<td>Freight Mobility for the Region, State, &amp; Nation</td>
<td>35 Max</td>
</tr>
<tr>
<td>General Mobility</td>
<td>25 Max</td>
</tr>
<tr>
<td>Safety</td>
<td>20 Max</td>
</tr>
<tr>
<td>Freight &amp; Economic Value</td>
<td>15 Max</td>
</tr>
<tr>
<td>Environment</td>
<td>10 Max</td>
</tr>
<tr>
<td>Partnership</td>
<td>25 Max</td>
</tr>
<tr>
<td>Consistency with Regional &amp; State Plans</td>
<td>5 Max</td>
</tr>
<tr>
<td>Cost</td>
<td>10 Max</td>
</tr>
<tr>
<td>Special Issues</td>
<td>8 Max</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>188 pts</strong></td>
</tr>
</tbody>
</table>
Example Processes
WA Rail Study Benefits Analysis Framework

1. Identify Users / Beneficiary Groups of Project
2. Assign Metrics to Measure Benefit / Impact to Each User Group
3. Evaluate Benefits / Impacts: Quantitatively if possible, Qualitatively if not
4. Compare Benefits Among User Groups
5. Assign Appropriate Level of Participation / Response to Each User Group
Example Processes
OFM Input-Output Model

- OFM Input-Output Model:
  - Estimates how direct spending will ripple through the state economy, resulting in:
    - Indirect effects on other business sectors (employment, earnings)
    - Consumption effects from additional household income
  - Data Requirements (in dollars):
    - Total and in-state purchases of construction materials
    - Number of project staff and wages
    - Equipment, transport, and other expenses

Current model is based on 1997 data (i.e., Economic Census, Commodity Flow Survey) by industrial sector (both SIC and NAICS codes). Model updates are underway to reflect 2002 data.
Role of Goods Movement in a Regional Economy
Contributions of Public Sector Investment & Policy

Traffic Flows
Cars, Trucks, Planes, Rail Cars

Transportation Infrastructure
Highways, Rail Lines, Ports, Access Roads

Industry Logistics Patterns
Supply Chains, Distribution Networks

Economic Structure
Type of Industries, Households, Labor Force

Investment and Policy
Capacity, Regulation, Pricing, Funding
Freight Infrastructure and Economic Growth
Role of Public Sector Investment & Policy

- Transportation System Investment
  - Transportation System Efficiency
    - Travel Time
    - Cost
    - Reliability
  - Productivity
  - Labor and Market Access
- Competitiveness
- Economic Growth
Example Processes
CREATE in Chicago

- Address existing and future congestion issues for five freight and passenger rail corridors in Chicago:
  - $1.5 billion for 78 individual projects. Includes grade separations, viaduct improvements, safety enhancements, track/signal upgrades
  - Public-private partnership including Illinois DOT, City of Chicago, Metra, Amtrak, six large freight railroads, switching railroads
  - Joint Statements of Understanding were signed that identified roles and responsibilities, created a governance structure, and defined funding levels from the private sector

- About $232 million of the project cost will come from the railroads. This amount of private participation was based on an estimate of economic benefits to the railroads
Example Processes
CREATE in Chicago  (continued)

- **Estimated Project Benefits:**
  - **Passenger Rail:** new express corridor; other capacity improvements
  - **Highway Users:** reduced congestion from grade separations and more efficient rail traffic routing; improved safety
  - **Freight Shippers:** additional routes & capacity; reduced inventory costs
  - **Railroads:** reduced fuel consumption & operating expenses; increased rail capacity; faster and more reliable deliveries; better utilization of rolling stock
  - **Economic:** labor wages; purchase of materials; multiplier effect
  - **Environmental:** reduced emissions
  - **Other:** Reduced need for new highway construction

Benefits estimated by travel demand model, safety analysis, railroad simulation model, regional input-output model, air quality analysis
Example Processes
Virginia Rail Enhancement Fund

Applicants submit projects to the Director of the Virginia Dept of Rail and Public Transportation (DRPT):

- Rail operators (freight and passenger rail)
- Private businesses / industries that use rail
- Governments (regional and local)
- Nonprofit organizations

Director consults with the Rail Advisory Board to develop a recommended program of projects

RAB is made up of 9 members representing railroads, government agencies, and non-profits
Example Processes
Virginia Rail Enhancement Fund (continued)

- Commonwealth Transportation Board must approve all projects
  - Public benefits to Virginia must be \( \Rightarrow \) investment of funds

- Applicant establishes benefits using guidelines, but
  - cost / benefit software package under development
Discussion of Sample Freight Projects
Four Projects

- South End of Viaduct (SR 99) and SR 519
- SR 167 (Port of Tacoma to I-90)
- Vancouver Bypass/Rail Yard Improvements
- Stampede Pass
  - Case study results from the Washington State Rail Study
Discussion of Sample Freight Projects SR 99 and 519

**SR 99:** Replace viaduct from Holgate to S. King Street with a new surface roadway that connects to the existing viaduct. Provide new access from SR 99 directly to downtown. Create a crossing for freight to/from Port of Seattle.

**SR 519:** Connect a westbound off-ramp from I-5 and I-90 to the current South Atlantic Street Overpass. Separate car, freight, pedestrian and rail traffic to help improve traffic flow and safety.
Discussion of Sample Freight Projects
SR 167

Valley Freeway Corridor

- Six-lane freeway between I-5 and the current end of SR 167 in Puyallup
- Four-lane freeway between I-5 to SR 509 near Port of Tacoma

Benefits: congestion relief, increased safety, faster and more efficient freight movement particularly to/from Port of Tacoma

Tacoma to Edgewood

- Six-lane freeway between I-5 and the current end of SR 167 in Puyallup
- Four-lane freeway between I-5 to SR 509 near Port of Tacoma

Benefits: congestion relief, increased safety, faster and more efficient freight movement particularly to/from Port of Tacoma
Discussion of Sample Freight Projects
Vancouver Rail Project

Vancouver rail yard is major hub for both freight and passenger trains. More than 100 trains pass through the rail yard per day.

New bypass tracks in the rail yard to allow passenger trains to bypass congestion caused by freight trains.

Vehicle/pedestrian/bicycle bridge over the railroad tracks at the West 39th Street crossing to enhance safety.

Project will reduce congestion, increase safety, and improve Amtrak’s on-time performance.
Discussion of Sample Freight Projects
Stampede Pass

- Case study of East-West Capacity Improvements:
  - Improve Stampede Pass to allow for double-stack containers
  - Restore Old Milwaukee line from Ellensburg to Lind
  - “Bridging the Valley” improvements between Spokane & Sandpoint, ID

- Three Alternatives Evaluated:
  - Do Nothing
  - Alternative A: $350 million for selective capacity improvements (about 25% more capacity)
  - Alternative B: $1.5 billion for comprehensive capacity improvements (about 60% more capacity)
### Stampede Pass Example (continued)

#### User & Beneficiary Groups

<table>
<thead>
<tr>
<th>User &amp; Beneficiary Groups</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The State</strong></td>
<td>- Jobs</td>
</tr>
<tr>
<td></td>
<td>- Tax Benefits</td>
</tr>
<tr>
<td></td>
<td>- Environmental Impacts</td>
</tr>
<tr>
<td></td>
<td>- Safety Impacts</td>
</tr>
<tr>
<td><strong>Shippers</strong></td>
<td>- Service Reliability</td>
</tr>
<tr>
<td></td>
<td>- Transit Time</td>
</tr>
<tr>
<td></td>
<td>- Cost</td>
</tr>
<tr>
<td><strong>Passengers</strong></td>
<td>- Travel Costs</td>
</tr>
<tr>
<td></td>
<td>- Travel Time</td>
</tr>
<tr>
<td></td>
<td>- Increased Modal Choice</td>
</tr>
<tr>
<td><strong>Railroads</strong></td>
<td>- Train Delay</td>
</tr>
<tr>
<td></td>
<td>- Increased Revenue Traffic</td>
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<tr>
<td></td>
<td>- Equipment Availability</td>
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<tr>
<td><strong>Ports</strong></td>
<td>- Throughput</td>
</tr>
<tr>
<td></td>
<td>- Market Share</td>
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<tr>
<td><strong>Communities</strong></td>
<td>- Environmental Impacts</td>
</tr>
<tr>
<td></td>
<td>- Safety Impacts</td>
</tr>
<tr>
<td></td>
<td>- Local Jobs</td>
</tr>
<tr>
<td></td>
<td>- Reduced Delay</td>
</tr>
</tbody>
</table>

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*The State*
- Jobs
- Tax Benefits
- Environmental Impacts
- Safety Impacts

*Shippers*
- Service Reliability
- Transit Time
- Cost

*Passengers*
- Travel Costs
- Travel Time
- Increased Modal Choice

*Railroads*
- Train Delay
- Increased Revenue Traffic
- Equipment Availability

*Ports*
- Throughput
- Market Share

*Communities*
- Environmental Impacts
- Safety Impacts
- Local Jobs
- Reduced Delay
<table>
<thead>
<tr>
<th></th>
<th>No Action</th>
<th>Alternative A</th>
<th>Alternative B</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Shippers</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Passengers</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
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<tr>
<td>Railroads</td>
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<td>Communities</td>
<td>Low</td>
<td>Medium</td>
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<tr>
<td>National</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>
Stampede Pass Example (continued)
Identification of Beneficiaries

- **State**: Benefits from additional jobs, partially offset by increased emissions

- **Communities**: Benefits from additional jobs, partially offset by increased rail traffic

- **Ports and Railroads**:
  - Primary beneficiaries
  - Ports: increased imports and exports
  - Railroads: increased revenue from additional trains, reduction in congestion-related costs
Fully Quantify Economic Benefits of Jobs Created and Maintained:
  - REMI Model
  - Input-Output Model (IMPLAN, OFM Model)

Fully Quantify Impact of Any Trucks Diverted to Rail:
  - Use Highway Economic Requirements System (HERS) model to quantify impacts to highway system

Justify Planning Horizon:
  - This case study was based on a 10-year planning horizon
# Schedule of Stakeholder & Policy Group Meetings

<table>
<thead>
<tr>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
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<tr>
<td><strong>Stakeholder</strong></td>
<td><strong>Policy</strong></td>
<td><strong>Stakeholder</strong></td>
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<td><strong>Stakeholder</strong></td>
<td><strong>Stakeholder</strong></td>
</tr>
<tr>
<td>9th Kick-Off</td>
<td>11th 1st Policy</td>
<td>26th 2nd Stakeholder</td>
<td>25th 3rd Stakeholder</td>
<td>13th 4th Stakeholder</td>
<td>TBD 5th Stakeholder</td>
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<tr>
<td></td>
<td></td>
<td>30th 2nd Policy</td>
<td></td>
<td></td>
<td>3rd Policy</td>
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## Study Schedule

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<th>Tasks</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
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<tbody>
<tr>
<td>1. Evaluate Existing &amp; Potential Funding Incentives</td>
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<td>2. Analyze Current Industry Taxes &amp; Fees</td>
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<td>3. National &amp; International Comparison of Freight Funding</td>
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<td>4. Assess Non-Freight Funding Sources</td>
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<td>5. Measure Economic Impact of Funding</td>
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<td>6. Assess Diversion of Marine Cargo</td>
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<td>7. Measure ROI of Freight Infrastructure</td>
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<td>8. Examine Other Potential Project Specific Fees</td>
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<td>9. Recommend a Project Recommendation Body</td>
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<td>10. Supplemental Work Tasks</td>
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<td>11. Stakeholder/Policy Group</td>
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| Deliverables | | | | | | | |
| Research Tasks | | | | | | | |
| Economic Tasks | | | | | | | |
| Other Tasks | | | | | | | |

**Stakeholder Group Meetings**: WP 1.4, WP 5.7, WP 8

**Policy Group Meetings**: WP 5.7, WP 8

**Presentations to Legislature**: WP 8

**Progress Reports**: WP 1.4, WP 5.7

**Draft Final Report**: WP 8

**Final Report**: WP 8
Adjournment