JTC Freight Investment Study
Third Stakeholder Group Meeting

presented to

Freight Financing Study Stakeholder Committee

presented by

Christopher Wornum, Cambridge Systematics, Inc.
Michael Fischer, Cambridge Systematics, Inc.
Cecily Way, Cambridge Systematics, Inc.
Gill Hicks, Gill V. Hicks and Associates, Inc.

October 25, 2007

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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

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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

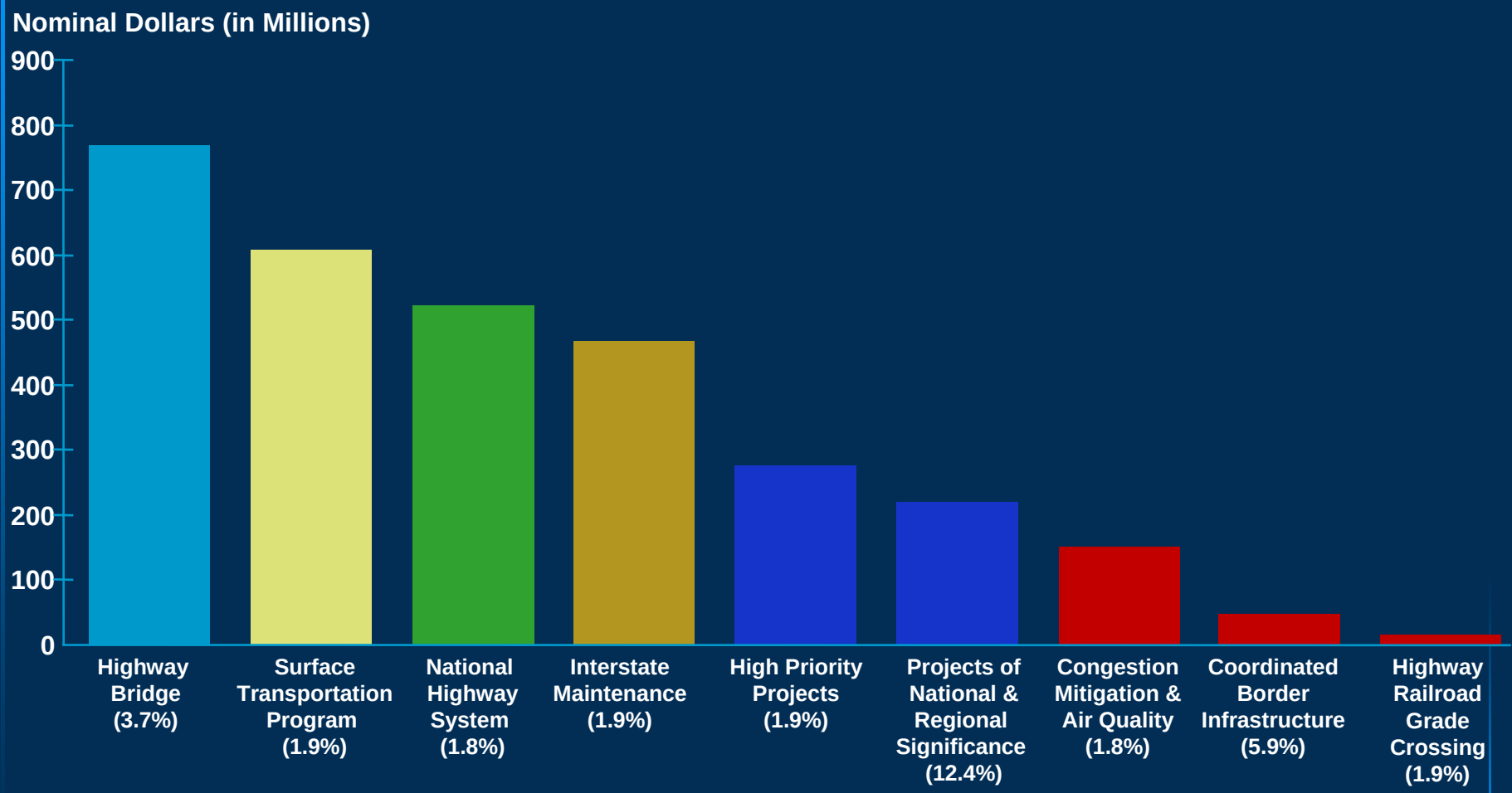
Recap of Study Objectives & Progress to Date
Study Progress to Date

- **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



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.

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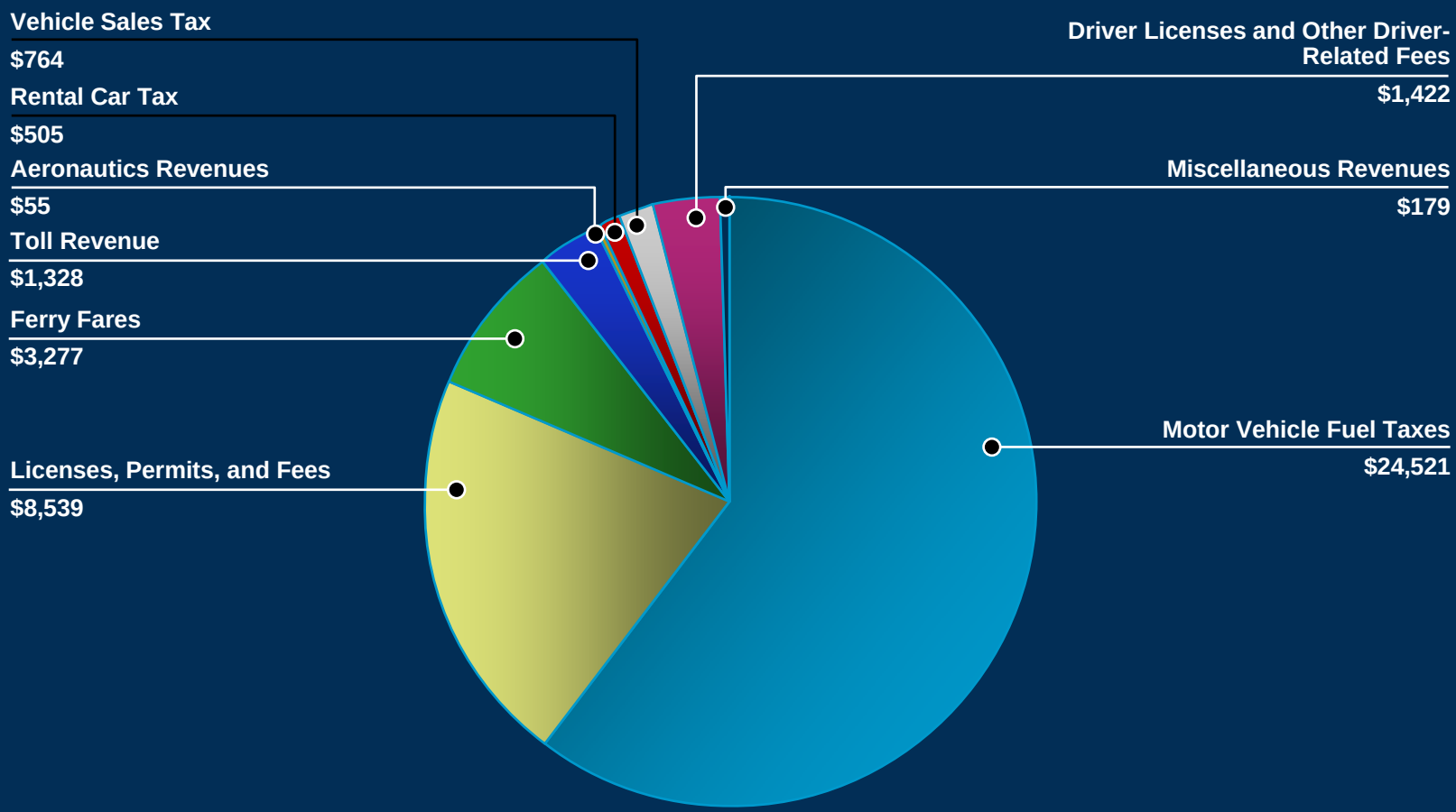
Recap of Study Objectives & Progress to Date
State Revenue Projections, 2007-2023 (in millions)



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

Source: Washington State Office of Financial Management September 2007 Transportation Revenue Forecasts.
Note: Revenues are in Millions of Dollars.

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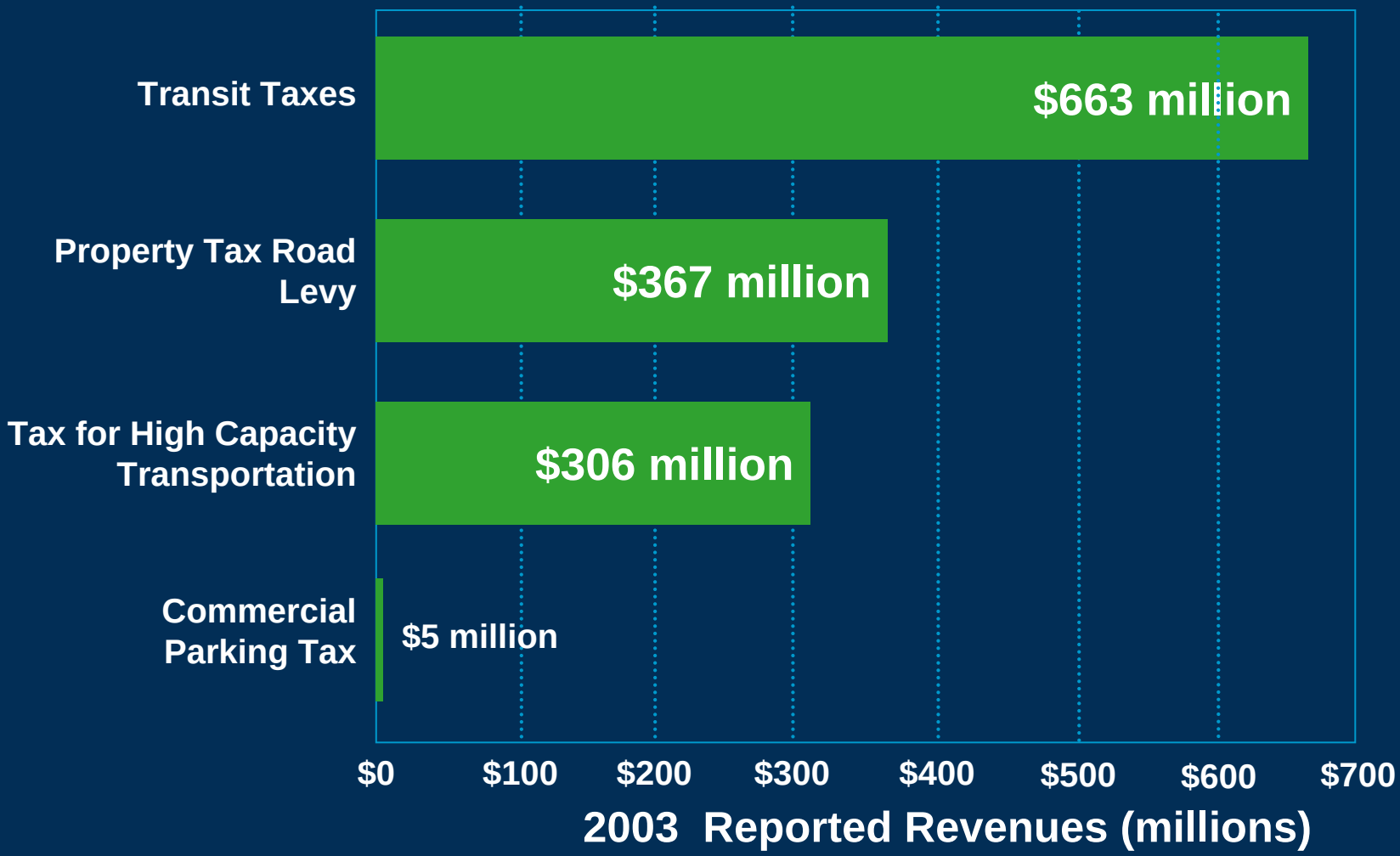
Recap of Study Objectives & Progress to Date
Local Transportation Revenue, FY 2005



Source: 2007 Transportation Resource Manual (Legislative Transportation Committee, Feb 2007).
Not shown: Border Area Fuel Tax ($138,000).

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Recap of Study Objectives & Progress to Date
Case Studies - Large Funding Programs

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

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Recap of Study Objectives & Progress to Date
Case Studies – Freight Project Funding

Project Name	Innovative Financing Tool	Amount	Total Cost	Structure/Rationale/Other
Alameda Corridor, So. California	Railroad User Fees to repay bonds	$1.5 billion	$2.4 billion	$18.04 per loaded TEU, plus other fees. Shippers benefit, Wide base
Reno, Nevada Transportation Rail Access Corridor	Sales Tax (0.125%), Special Assessment Railroad Equity	$50.5 million $58 million	$280 million	
Port of Miami, FL Tunnel	Developer Equity, Possibly Tolling	Private sector carries	> $1 billion	DBOM Contract, FDOT payment for maintenance and operations
Trans Texas Corridor I-35	Developer Equity, Tolling	Private sector risk	$1.3 billion	TxDOT one-time $25 million concession, share toll revenues
Shellpot Bridge Replacement (Delaware)	Rail Car Fees to repay loan	$8.9 million	$13.5 million	Minimum annual payments; sliding scale fee structure based on volume
Chicago Region Environ & Transp Efficiency Program	Railroad Equity	Phase 1: $100 million	Phase 1: $330 million	Based on private sector economic benefit

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Recap of Study Objectives & Progress to Date
Case Studies - NEW

Project Name	Type of Fee/Fund	Funds Raised	Fee Structure	Positives	Potential Problems
Washington State's FAST	Prioritizing and sharing funding	$568 million in 10 years, need $300 million more	General sources: FMSIB, WSDOT, Federal Gov't, UP, BNSF, Ports, TIB	Money to projects that are ready, strategic	No additional revenue
Oregon State's Connect Oregon	Bonds backed by State Lottery Funds	2005- $100 million in bonds, 2007- $100 million	Revenues from the state lottery	New revenue stream	No link between costs and benefits, Not freight specific

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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**

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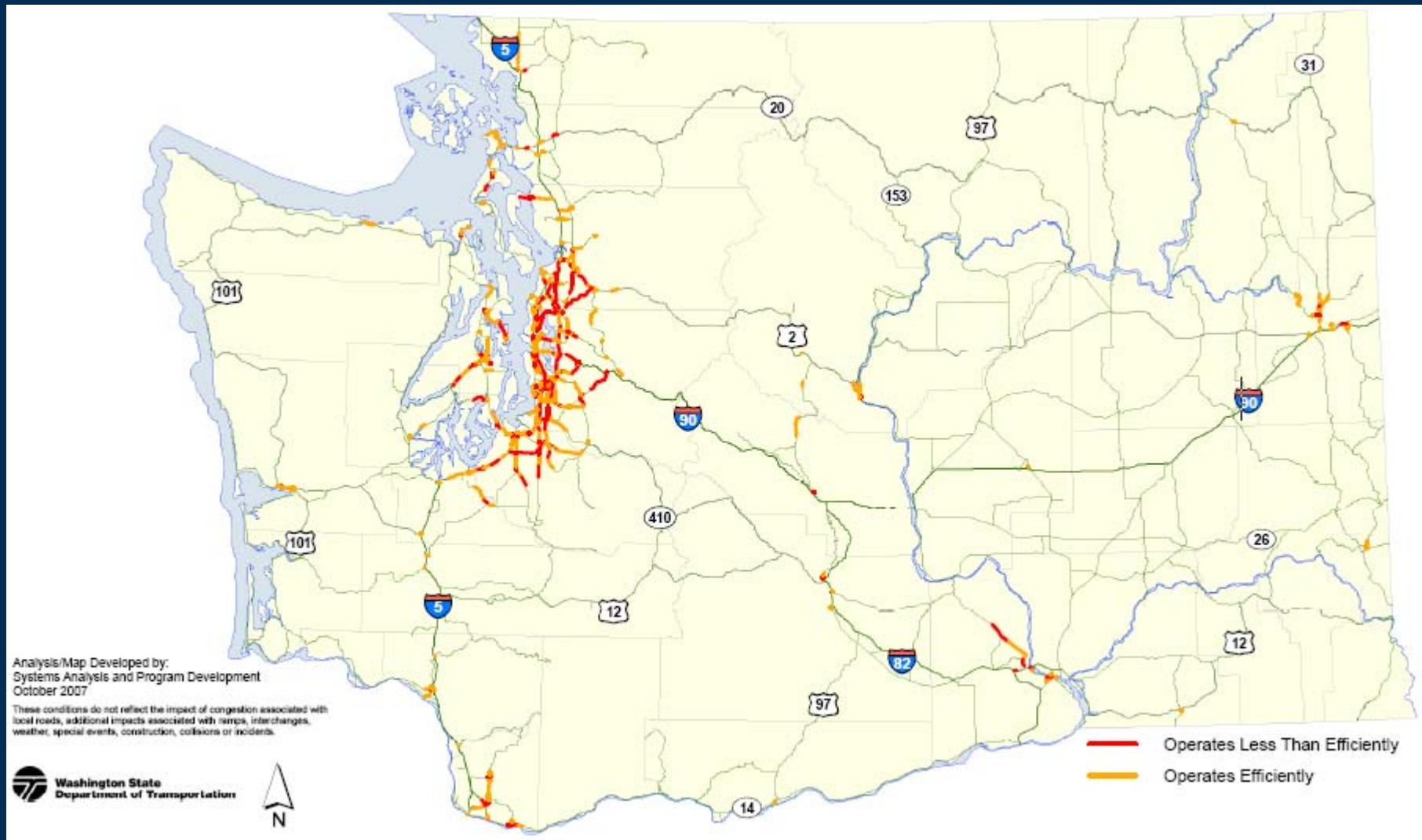
Freight Transportation Flows & Bottlenecks
Peak-Hour State Highway Congestion, 2005



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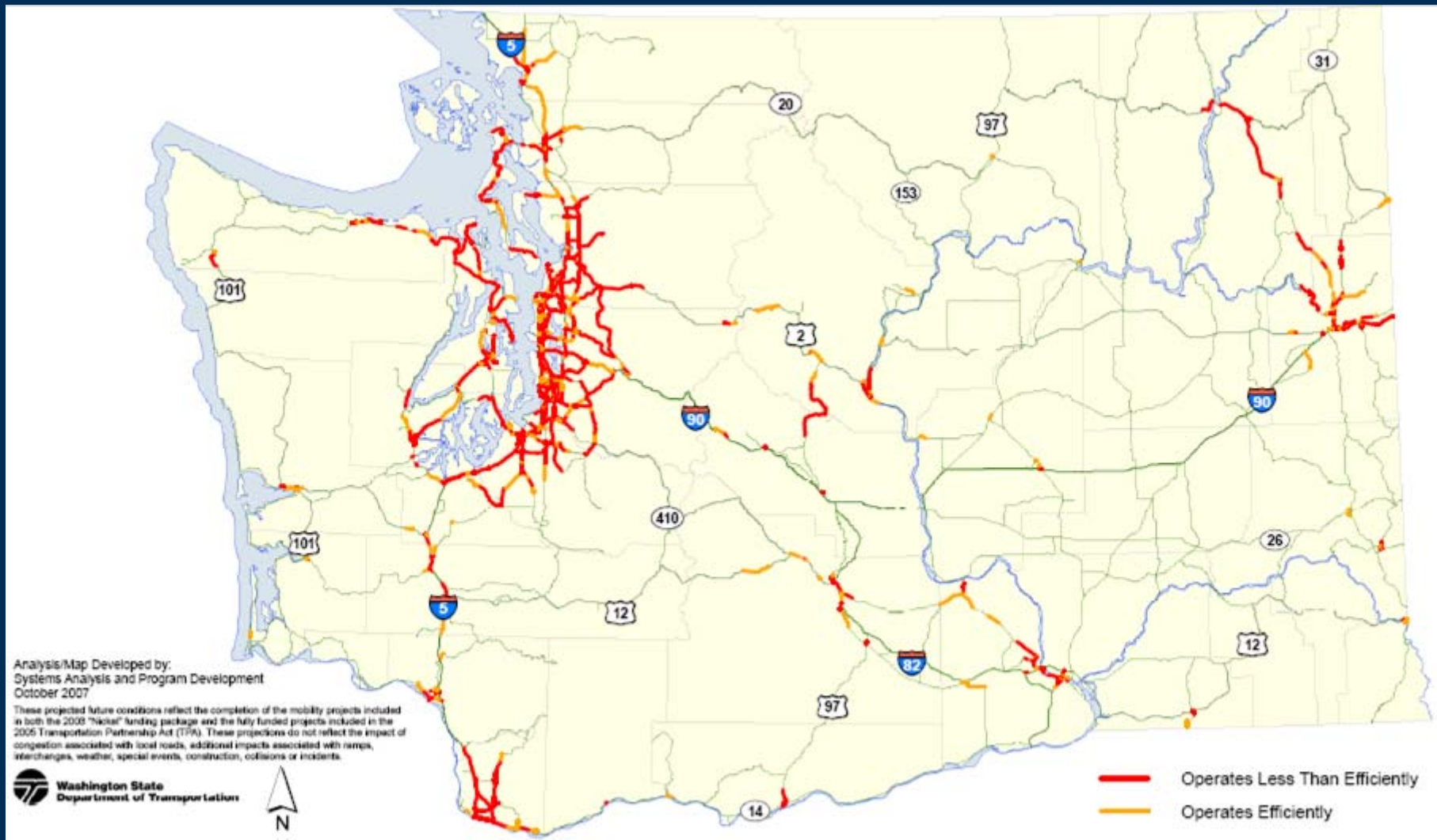
Freight Transportation Flows & Bottlenecks
Projected Peak-Hour State Highway Congestion, 2030



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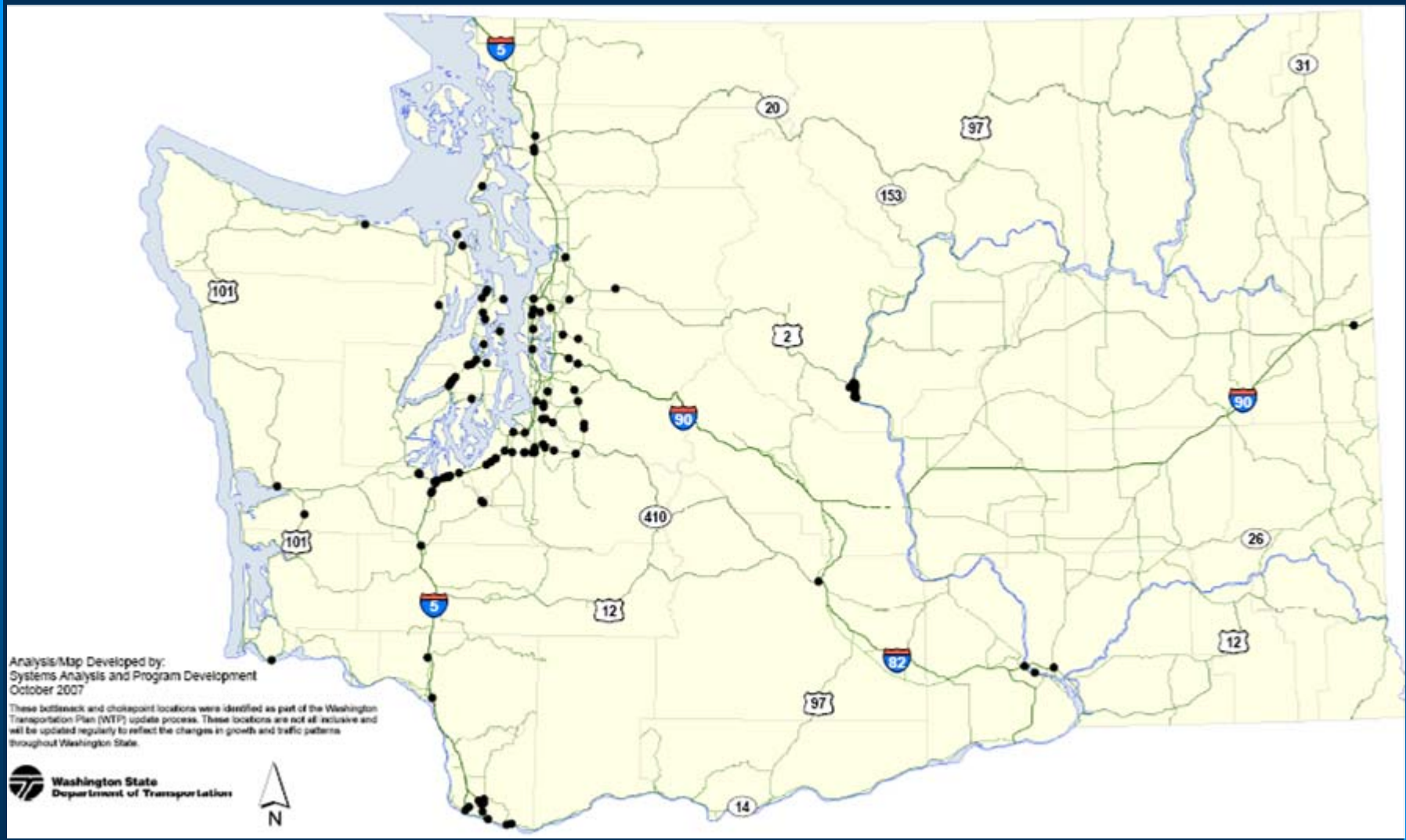
Freight Transportation Flows & Bottlenecks
State Highway System Bottlenecks from 2007 to 2026



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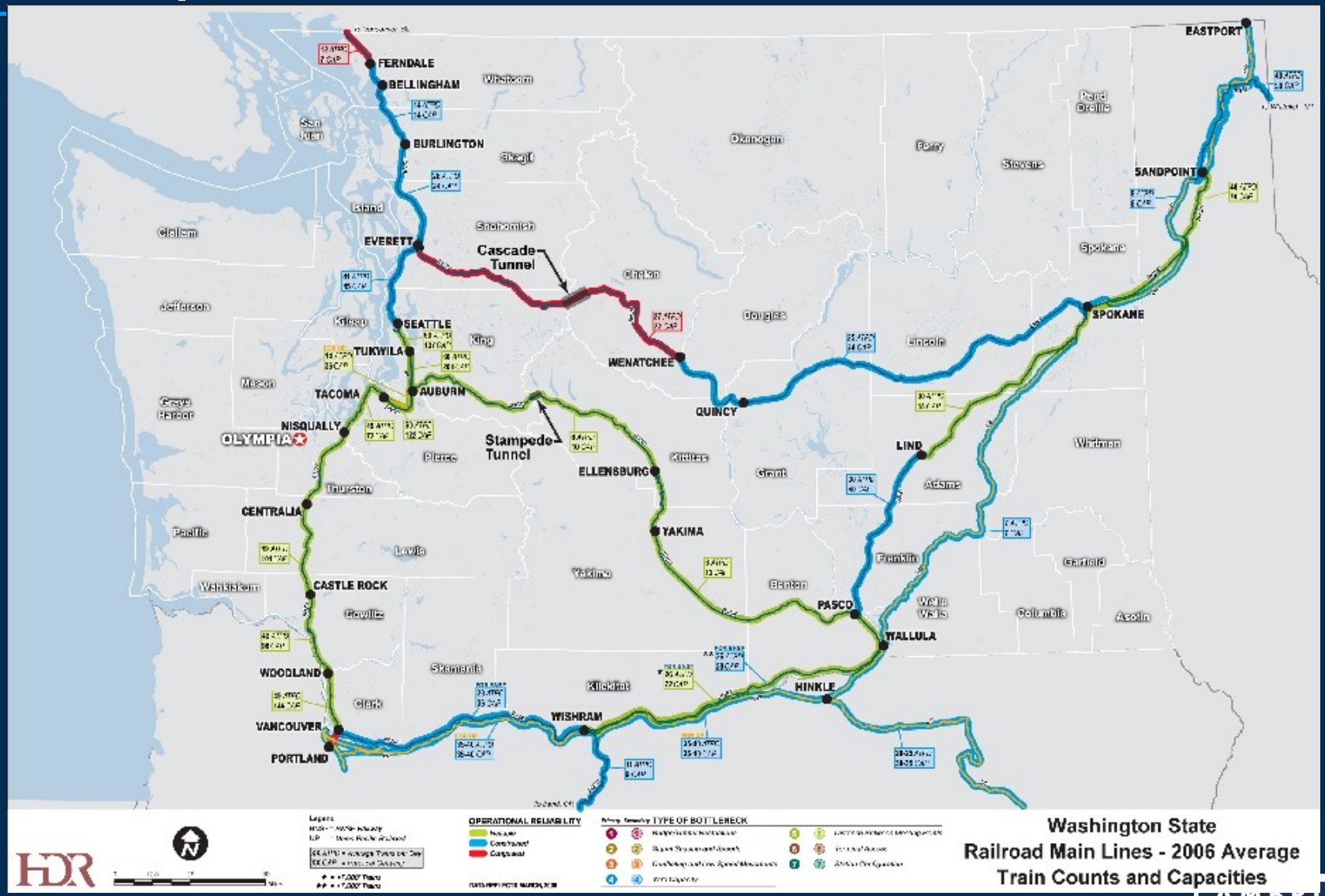
Freight Transportation Flows & Bottlenecks
Rail Capacities, 2006



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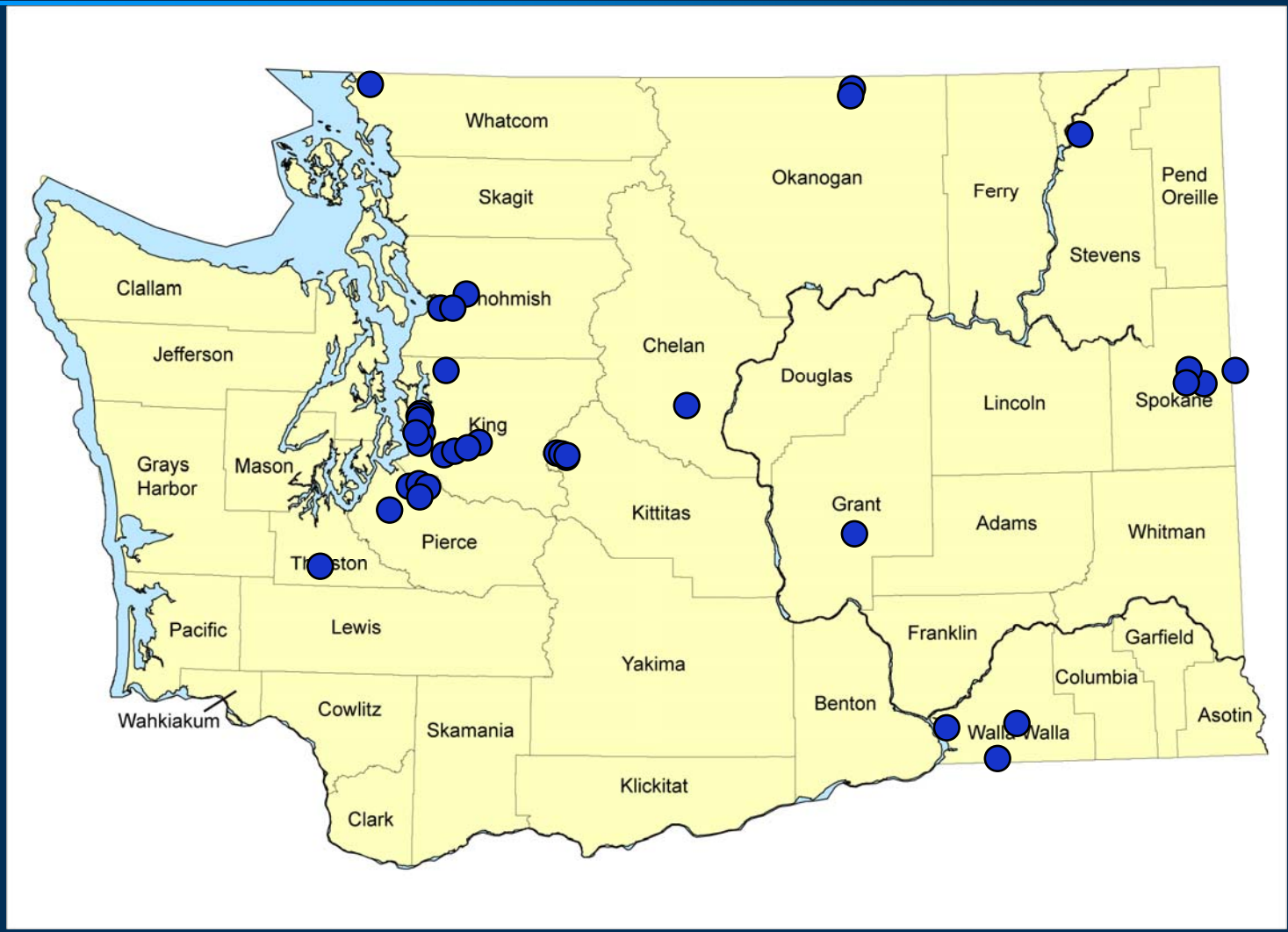
Freight Transportation Flows & Bottlenecks
Rail Bottlenecks

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



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Inventory of Candidate Projects
Rail

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Inventory of Candidate Projects
Intermodal/Grade Separations

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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

WSDOT Freight Systems Division
Strategic Planning Update

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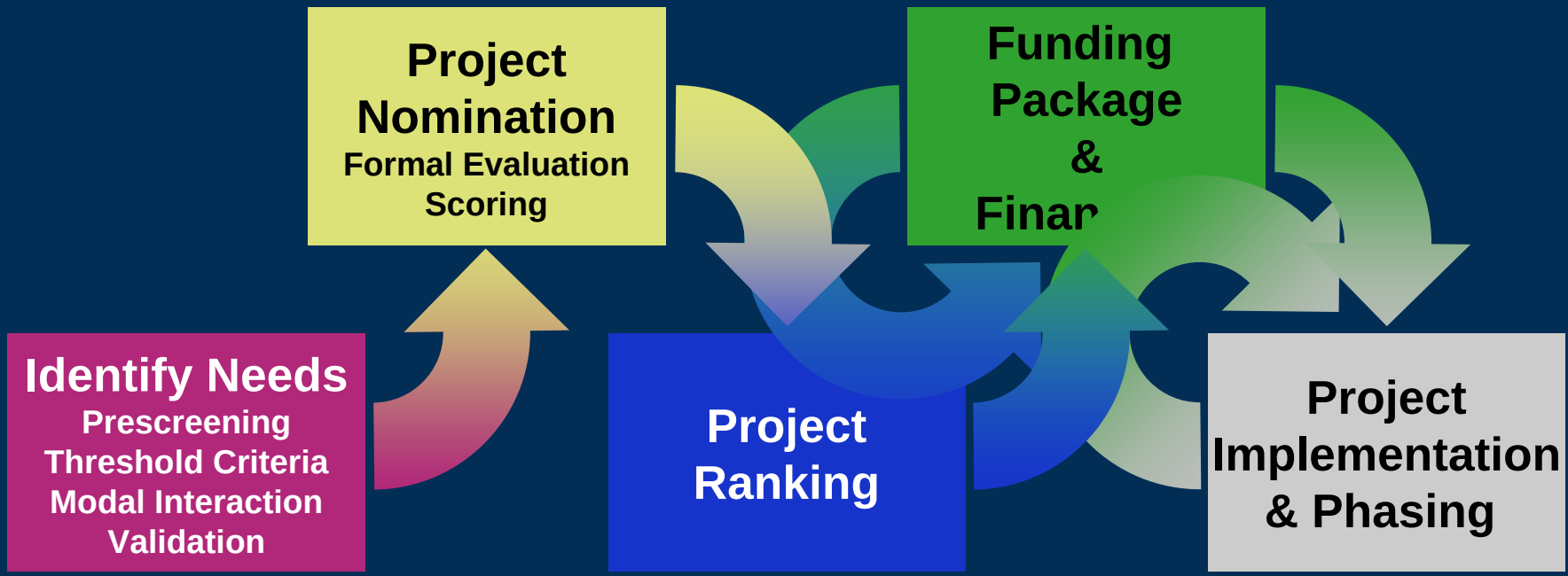
Process for Identifying & Ranking Priorities
Objectives, Existing Concepts, and Issues



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

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

Project Evaluation Criteria	Weight
Freight Mobility for the Project Area	35 Max
Freight Mobility for the Region, State, & Nation	35 Max
General Mobility	25 Max
Safety	20 Max
Freight & Economic Value	15 Max
Environment	10 Max
Partnership	25 Max
Consistency with Regional & State Plans	5 Max
Cost	10 Max
Special Issues	8 Max
TOTAL	188 pts

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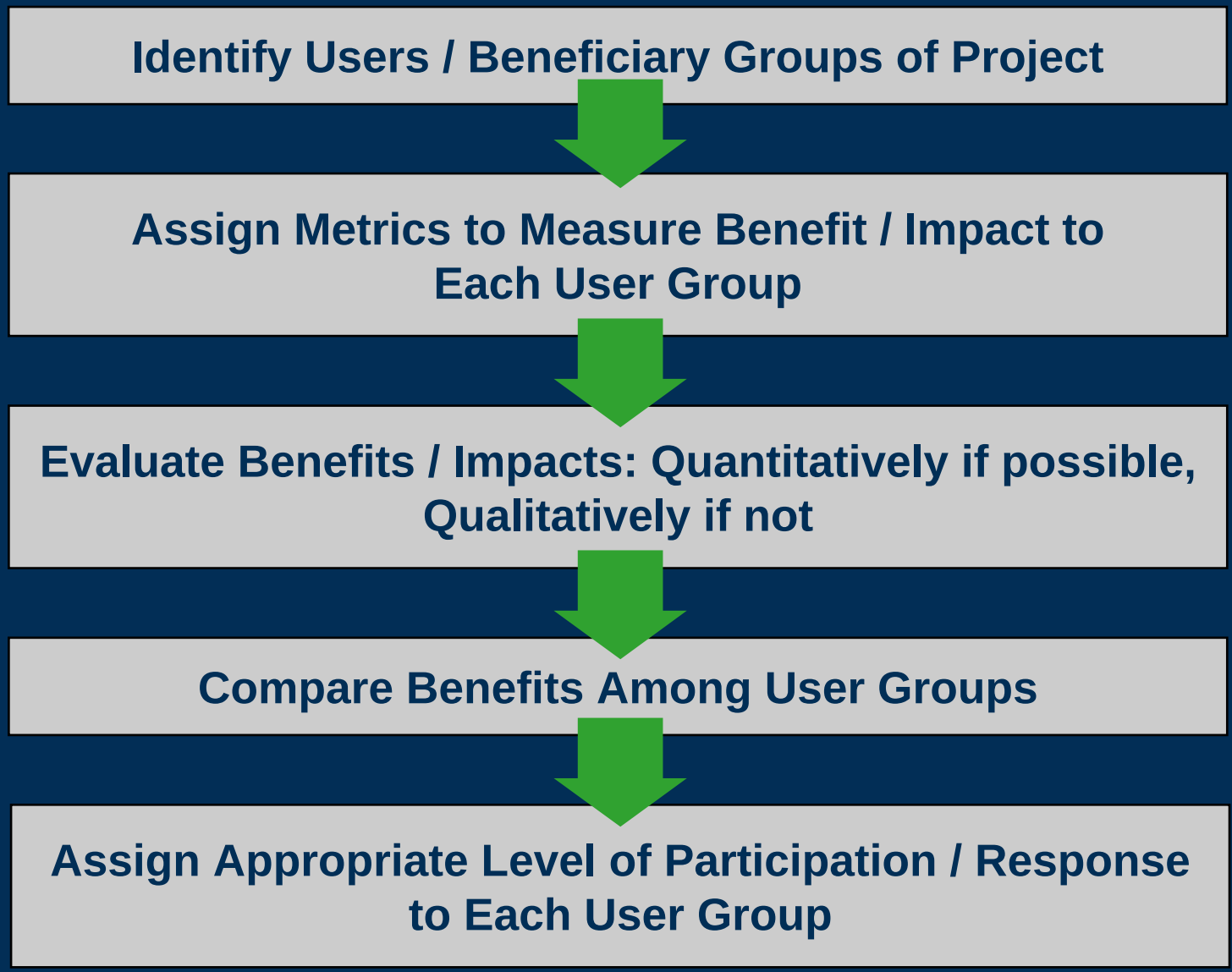
Example Processes
WA Rail Study Benefits Analysis Framework



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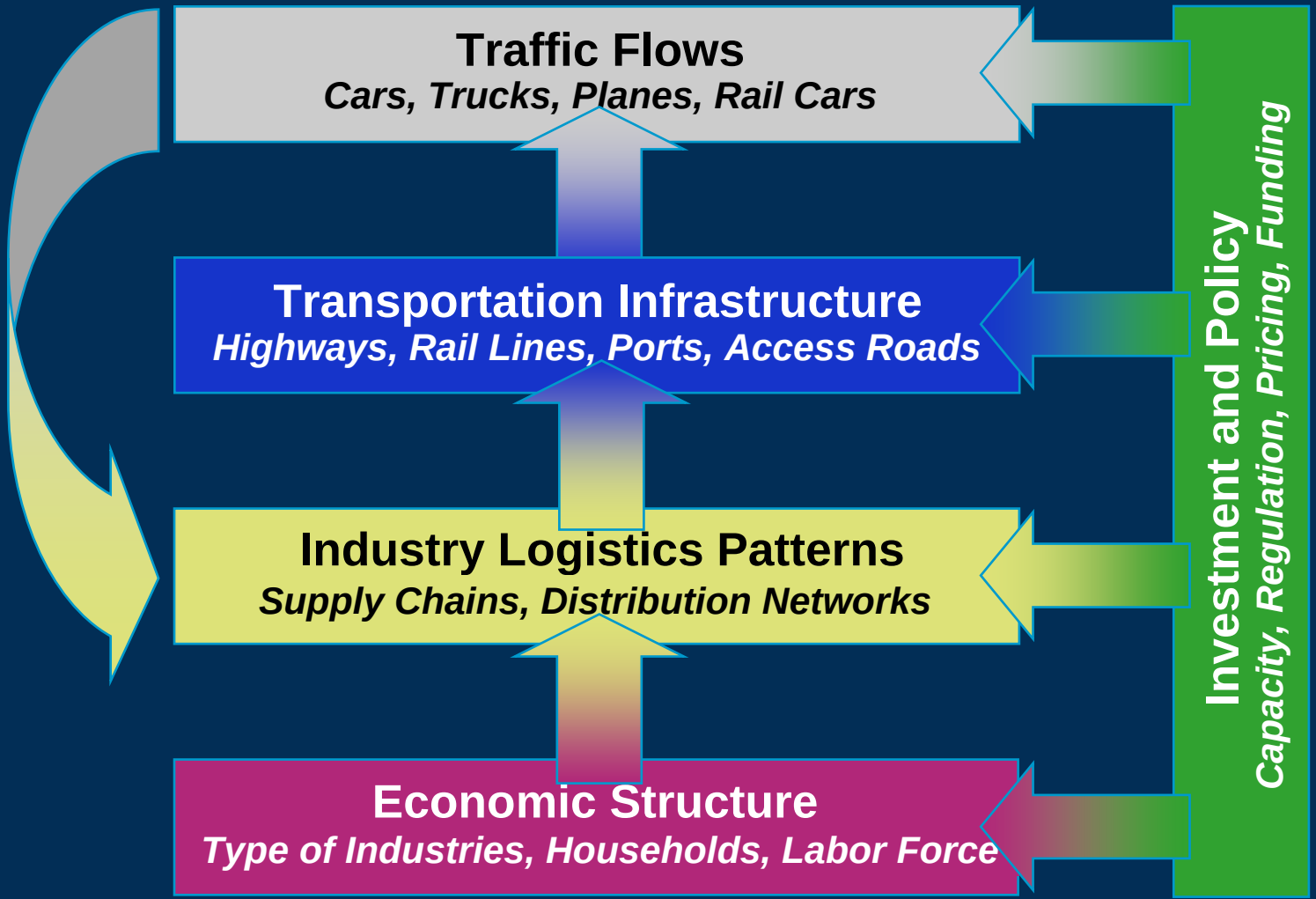
Example Processes
OFM Input-Output Model

- 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



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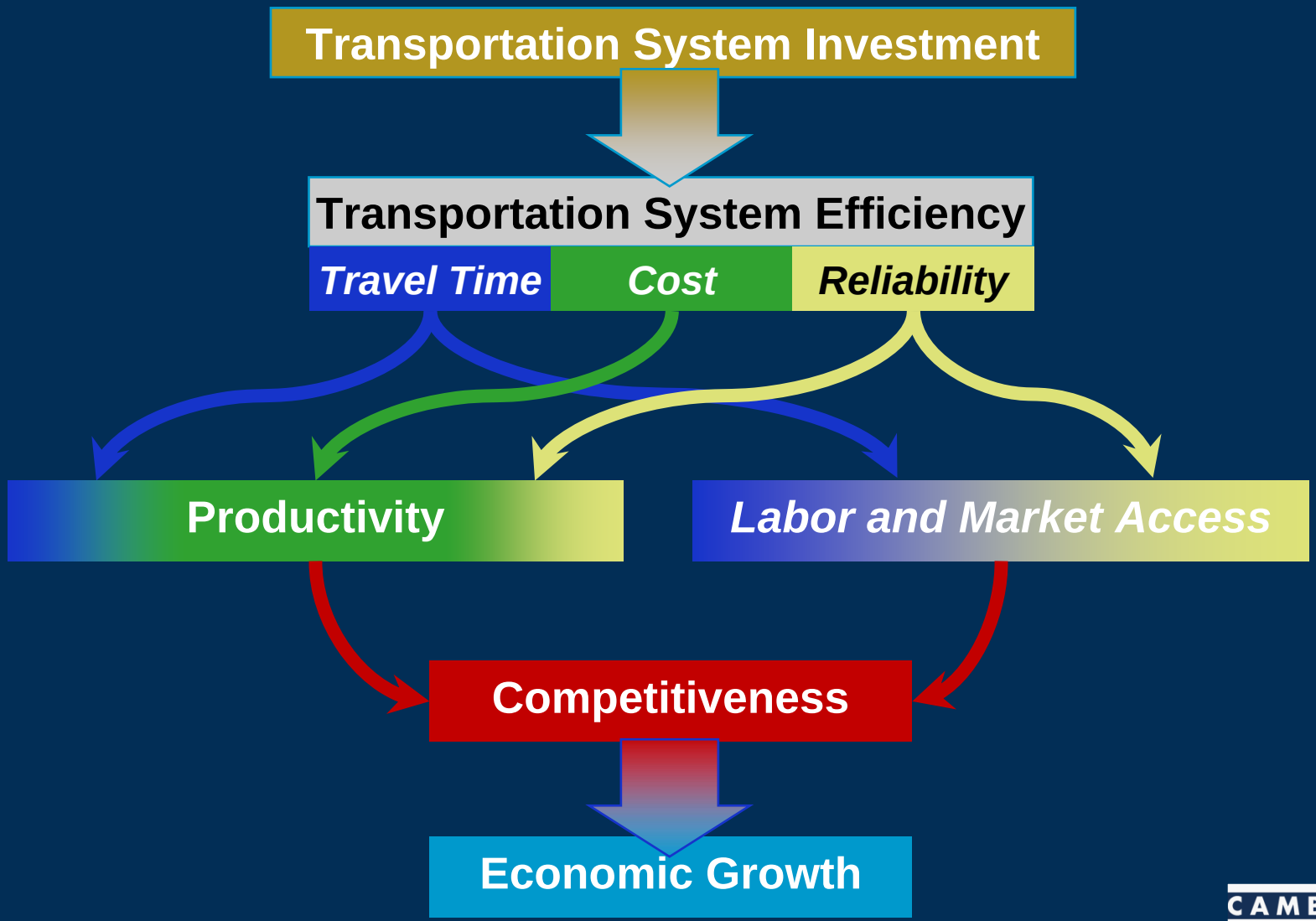
Freight Infrastructure and Economic Growth
Role of Public Sector Investment & Policy



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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**

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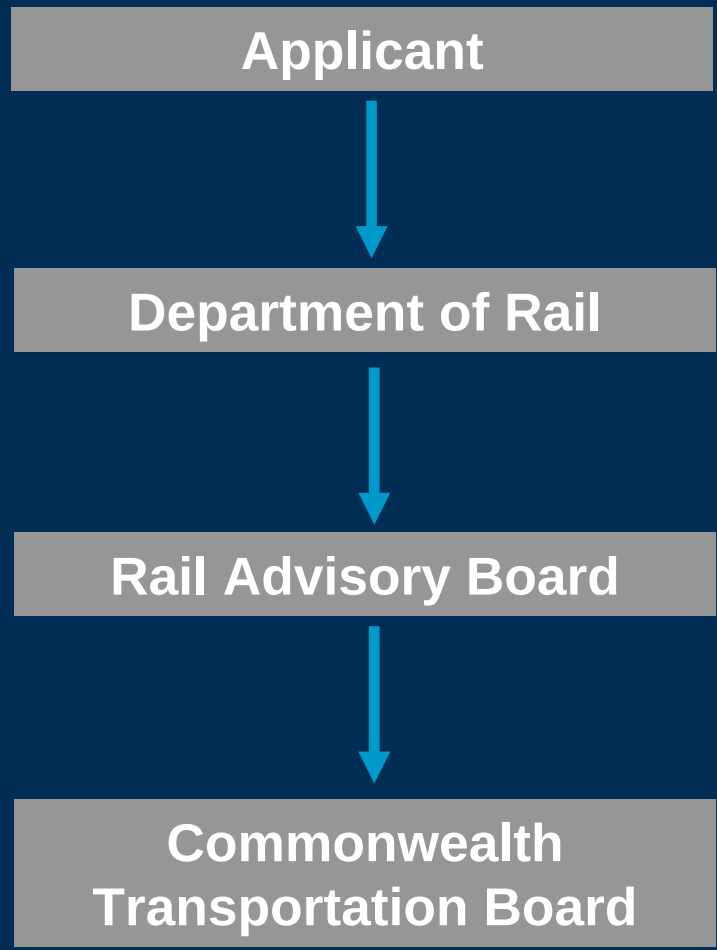
Example Processes
Virginia Rail Enhancement Fund

- 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 => investment of funds
- Applicant establishes benefits using guidelines, but
  - cost / benefit software package under development



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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

SR 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

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Discussion of Sample Freight Projects
SR 167

Valley Freeway Corridor

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

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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)

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Stampede Pass Example (continued)
User & Beneficiary Groups

User & Beneficiary Groups	Metrics
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

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Stampede Pass Example (continued)
Qualitative Measures of Benefits to Stakeholders

	No Action	Alternative A	Alternative B
State	Low	Medium	Low
Shippers	Low	Medium	High
Passengers	Low	Low	Medium
Railroads	Low	Medium	High
Ports	Low	High	High
Communities	Low	Medium	Medium
National	Low	Medium	High

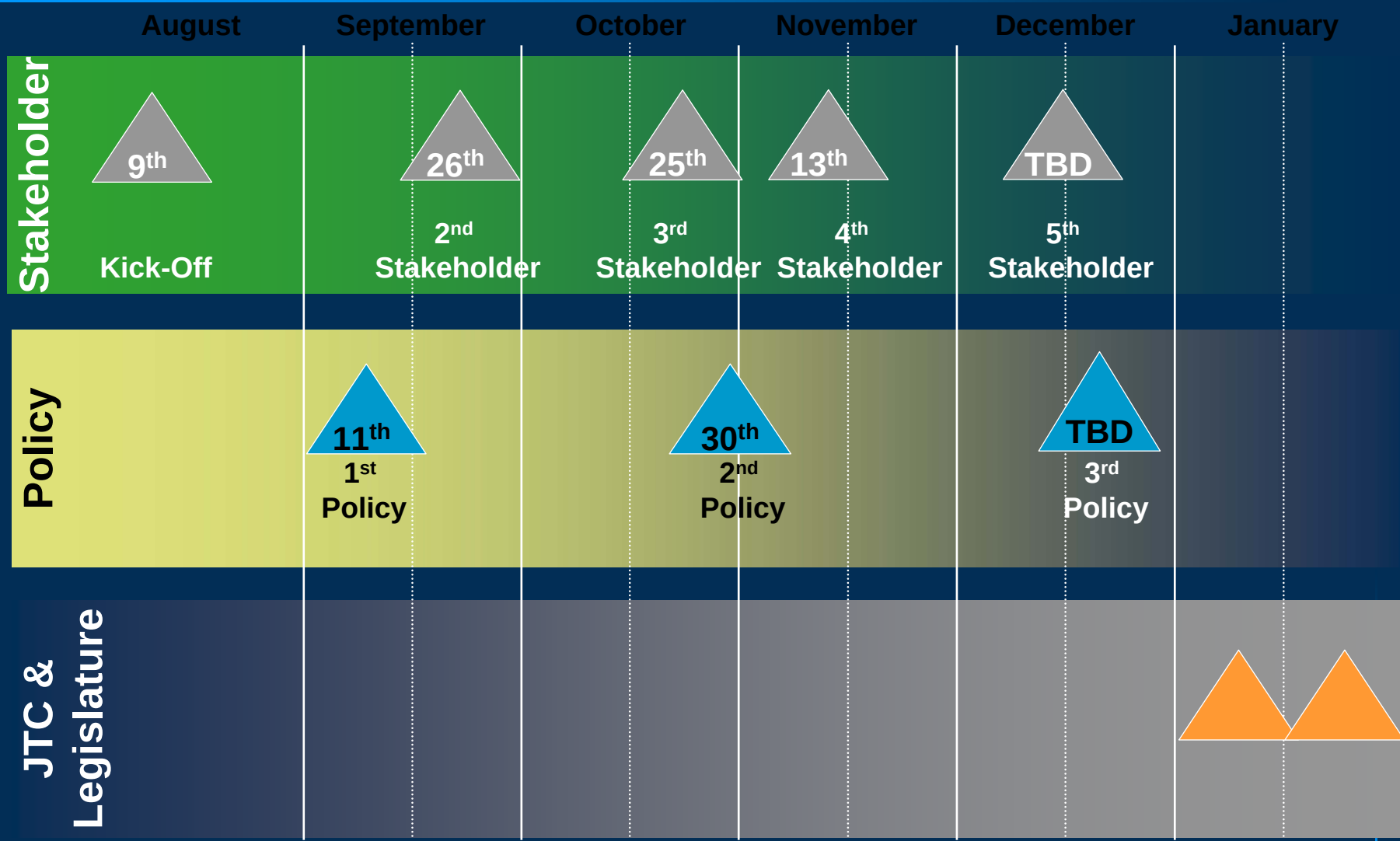
Stampede Pass Example (continued)
Identification of Beneficiaries

- 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

Stampede Pass Example (continued)
Possible Refinements to Benefit/Cost Methodology

- **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



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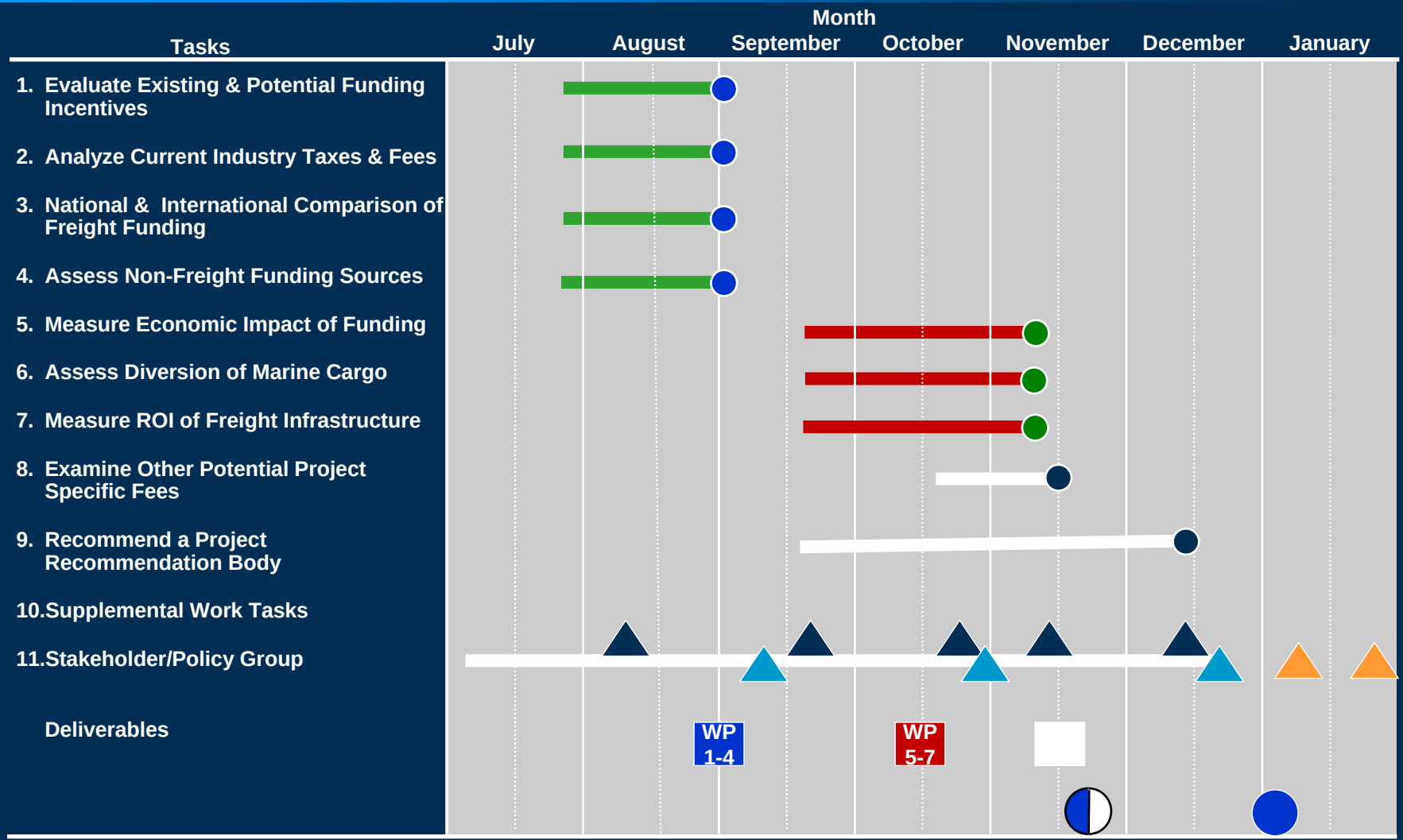
Study Schedule



Adjournment