

Washington State Freight Rail Plan

2010-2030

State Rail and Marine Office

Washington State Department of Transportation

Paula Hammond
Secretary of Transportation

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Olympia, Washington
June 11, 2009



Purposes of Washington State Freight Rail Plan

Scott Witt

Director of State Rail and Marine

Fundamental Changes in Socio-Economic and Natural Environments

- Increasing freight demand and increasing congestion on state highways.
- Global energy demand driving up fuel costs. Global warming causing increased natural disasters.
- Current transportation systems should be resilient to man-made and natural disasters.

Macro Policy Development and Decision Making Environment

- Addressing freight demand with multimodal and intermodal solutions.
- Seeking alternative policies to increase efficiency to relieve highway congestion and reduce greenhouse gas emissions.
- Developing robust and resilient transportation systems.
- Reviving the role of rail systems in strategic investment for transportation infrastructure.
- Competing needs for limited resources (capital & land).

Washington State Freight Rail Plan

Background

1. Last update – 1998 (with addenda on later years).
2. Next update - 2010.
3. To be integrated into:
 - Washington Transportation Plan
 - Statewide Multimodal Transportation Plan

Purposes of Washington State Freight Rail Plan

- Meet state and federal requirements for freight rail.
- Identify key issues (port access and railroad abandonment, state roles and authority).
- Provide essential information and assessment on the freight rail system and trends.
- Identify statewide infrastructure improvements and investment priorities for the state's freight rail system.
- Address key policy and management issues (funding, authority, public interests, state roles).

Role of this Advisory Committee

- Help develop vision of the freight rail plan.
- Provide assistance to update information for freight rail system, capacity, and needs.
- Help identify and assess port access and rail abandonment issues.
- Help assess and evaluate beneficial impacts of rail infrastructure improvements on society.
- Help WSDOT understand concerns of local communities and organizations.
- Information sharing.

Review of WSDOT Freight Rail Program

Andrew Wood

Deputy Director of State Rail and Marine

Current Functions of State Freight Rail Program

- Improve public safety by reducing at-grade crossings with high accident potential (WSDOT/FMSIB freight rail projects).
- Provide assistance to improve freight rail capacity and meet the needs of overall state economy (Rail Bank and Assistance Programs).
- Provide statewide freight rail system and utilization information (rail system maps, commodity flows, databases).
- Support industry segments (Produce Rail Car Program, Palouse River & Coulee City Rail Line).
- Provide strategic leadership for freight rail investment.

WSDOT Freight Rail Projects

To promote public safety and economic vitality in Washington State by managing and directing development of freight projects that serve the statewide public good.

WSDOT: **\$23 million**

- 21 freight rail projects
- Plus 11 passenger rail projects, eight of which have freight benefits.

Freight Rail Assistance Program

Grants for large projects where it is difficult to gain a contribution *and* where the rail location or the project is strategically important to state and local communities.

2007-2009 biennium: **\$3.2 million**

- 27 applications
- 6 projects funded

2009-2011 biennium: **\$2.8 million**

- 12 applications
- 7 projects funded

Rail Bank Program

Loans for smaller capital rail projects that promote economic development through the advancement of freight rail activities *and* help improve freight movement by rail throughout the state. \$250,000 max, 20% match.

2007-2009 biennium: **\$2.5 million**

12 projects funded

Grain Train Program

To address a shortage of grain cars and collect wheat and barley from grain elevators in eight cities in eastern Washington for transport to export facilities in Kalama, Tacoma, Seattle, Vancouver (WA), and Portland, OR.

Self-supporting Program

- Three fleets and 71 cars owned by WSDOT and 18 owned by Port of Walla Walla.
- 2008 Revenue: \$161,580.
- 2008 Carloads: 1,332.
- End of 2008 Reserve: \$1.28 Million.



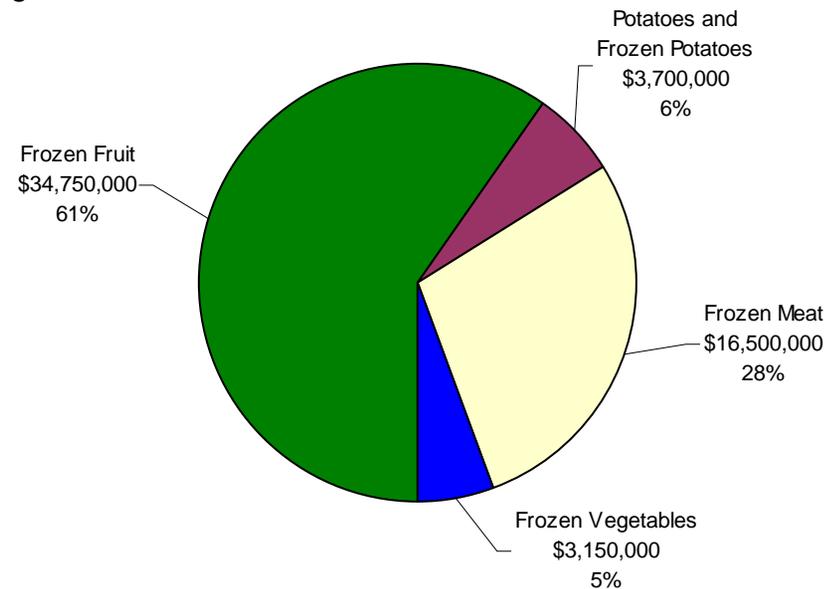
Produce Car Program

To assist the Washington agricultural community by providing refrigerated rail cars that carry produce to east coast states, eliminating hundreds of heavy truckloads per year from state highways, reducing congestion and maintenance, and improving safety.

Federal grant subsidized program—operated by Rail Logistics.

- 29 cars owned by WSDOT.
- Current utilization: 73%.
- Funding: \$2 million (federal), \$200,000 (state).

Produce Rail Car Shipment Value by Product
Year Aug 2006 to Dec 2008



Source: Compiled by WSDOT Rail and Marine Office From Data Reports of Rail Logistics

Palouse River and Coulee City (PCC) Rail Line

- **Purpose:** To provide direct service to shippers, manufacturers, and farmers in eastern Washington.
- Purchased in 2007 by WSDOT, saved from abandonment.
- The state's longest short-line system (279 miles).
- Spans four counties in eastern Washington.
- Three branch lines:
 - **PV Hooper Branch:** Operated by Watco (85 miles).
 - **CW Branch:** Operated by Eastern Washington Gateway Railroad (108 miles).
 - **P&L Branch:** Operated by Washington & Idaho Railway, Inc. (86 miles).

Freight Rail Planning: Socioeconomic Context

Brian Calkins

Senior Research Economist
State Rail and Marine Office

Functions of Washington State's Freight Systems

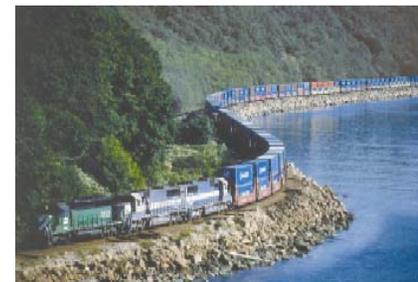
I. Global Gateways

International and national trade flows through Washington.



II. Made in Washington

Regional economies rely on the freight system.

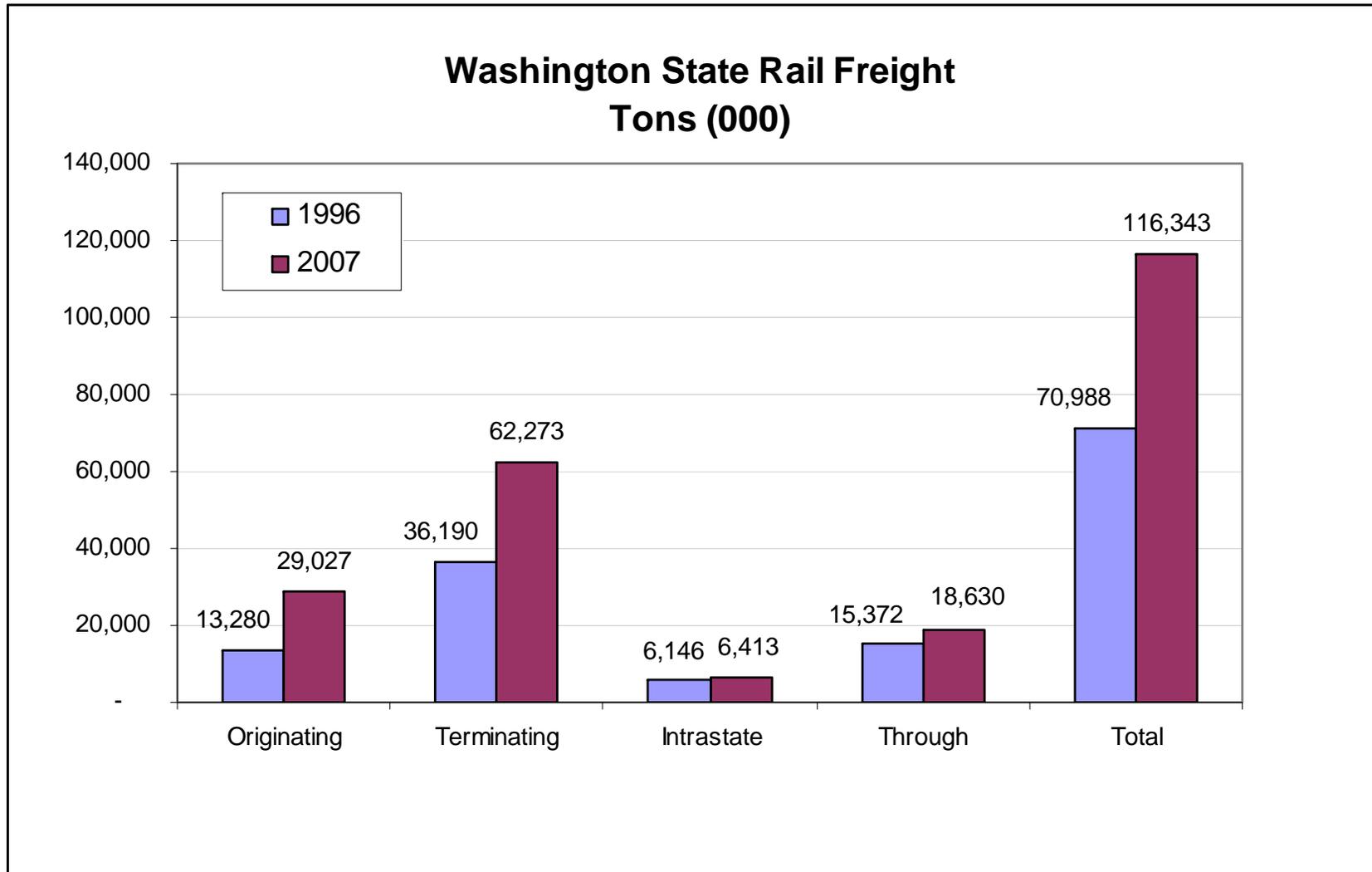


III. Delivering Goods To You

Washington's retail and wholesale distribution system.



Washington State Rail Freight



Freight Demand

- Macroeconomic factors: population growth and demographics, income, and employment.
- Effect of current deep recession and long-term economic changes.
- Intrastate, terminating, originating, and through.

Washington Non-Agricultural Wage & Salary Employment 2009 vs 2008 OFM Forecast

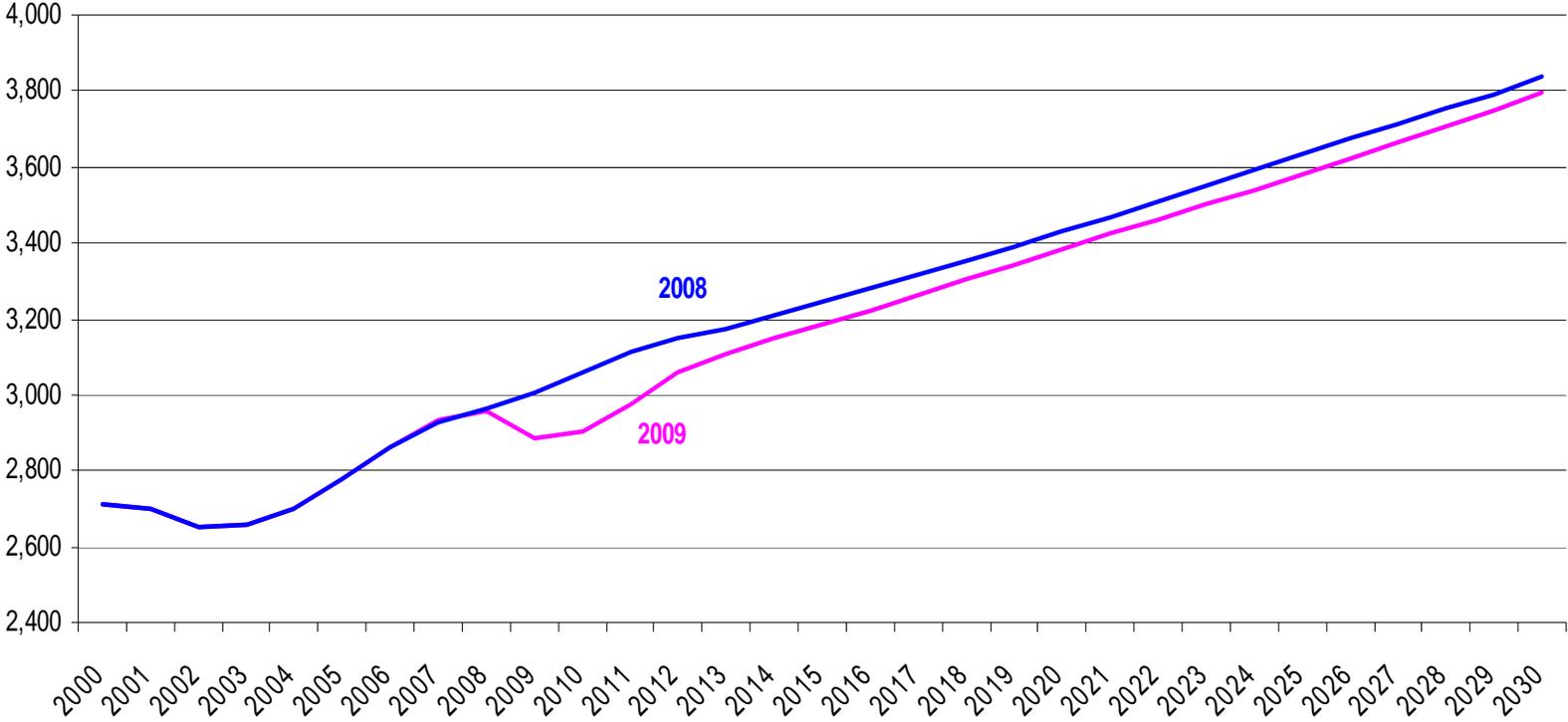
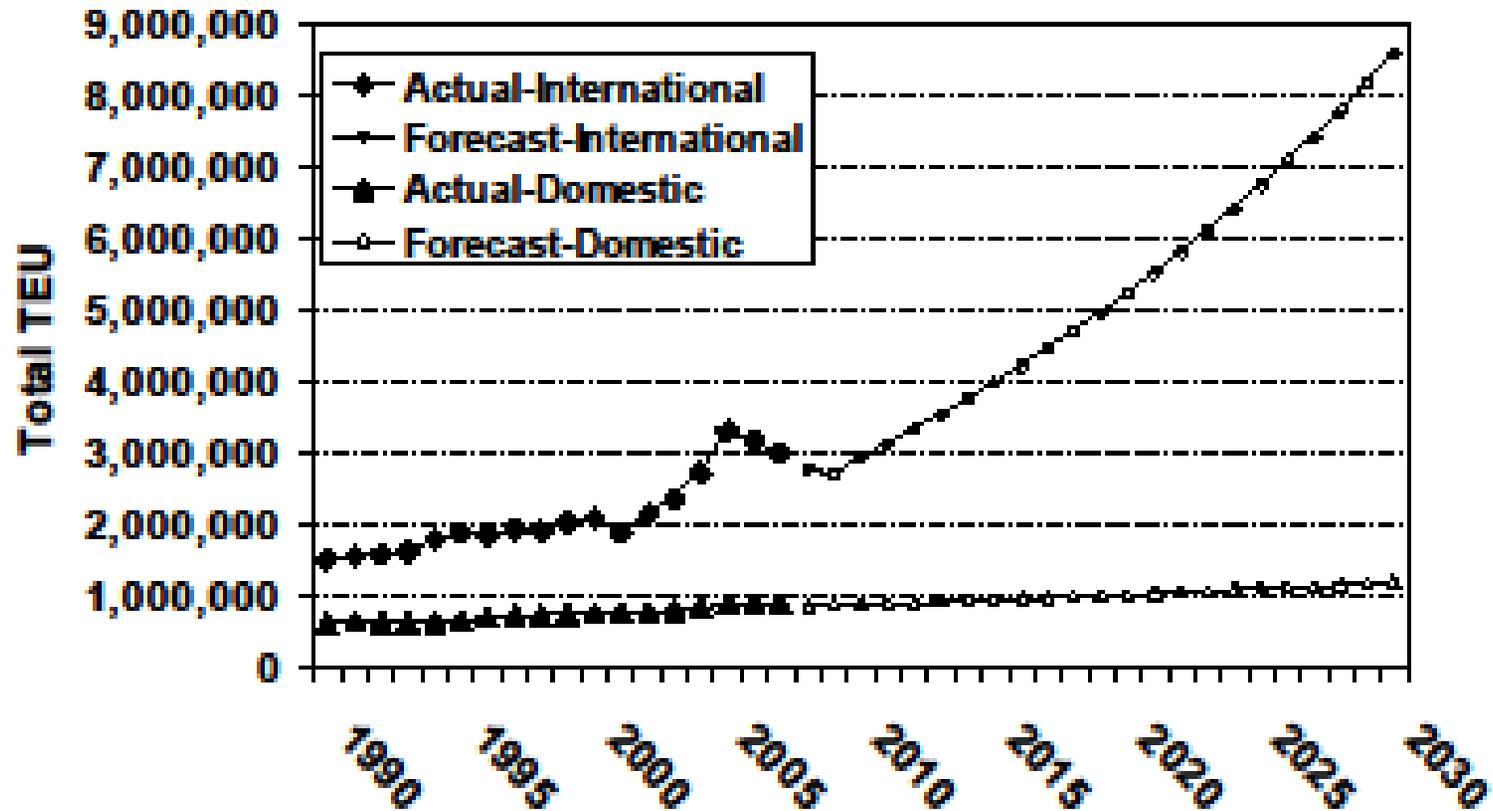


Figure 2-4: Puget Sound Container Forecast (1,000s of TEU)



Source: BST Associates, IHS Global Insight

Freight Demand - Continued

- Rapid growth or long-term sustainability.
- Infrastructure supply/efficiency.
- Mode of freight delivery
 - Rail, truck, marine, air, intermodal.
 - Transport preference by commodity.

Congestion/Safety

- Congestion—cost, reliability, and geography.
- Solutions
 - Logistics development.
 - Infrastructure build.
 - Maintenance improvements.
 - Technology.
- Rail crossing safety
 - Reductions in death and injuries.
 - Comparison to other freight modes.

Environmental

- Global warming.
- Air quality—fine particulates from locomotives—5th largest source in Washington.
- Water quality.
- Green economy—Green jobs.
- Life-cycle analysis by mode.
- Noise and air pollution—neighborhoods—equity and social justice.
- Land use choices.

Energy/Regulations

- High and volatile fuel prices.
- Fuel economy.
- Energy security—reliable supply of affordable energy (Green Economy definition).
- 2008 EPA emissions standards to reduce diesel particulate matter (PM) and nitrogen oxide (NOx) from locomotives and marine diesel engines.

Freight Rail Planning: Requirements and Guidelines

Lynn Scroggins
Senior Rail Planner
State Rail and Marine Office

Washington State Freight Rail Plan: Statutory Requirements

State (RCW 47.76.220) and federal requirements (PRIIA, Public Law 110-432, Section 30327) for freight rail include:

- Identify and address key policy issues.
- Provide statewide rail system information.
- Assess capacity and needs.
- Profile and forecast freight and commodity flows.
- Identify and develop improvements.
- Prioritizing projects and cost/benefit analysis.
- Stakeholder and public involvement.

AASHTO Rail Plan Guidebook (2009)

- Background.
- Rail self-assessment.
- Coordination and outreach.
- Vision, goals, and objectives.
- Rail system inventory.
- Rail issues and opportunities.
- Needs identification.
- Project evaluation approach.
- Funding for implementation.

Other State Rail Plans

State	Last Update	Planning Timeframe	Freight & Passenger Rail Plan Integration	Development Approach
California	2008	10 Years	Separate	In-House
Florida	*2006	20 Years	Together	Consultant
Minnesota	*2005	20 Years	Together	Consultant
New York	2009	20 Years	Together	In-House
Washington	2010	20 Years	Separate	In-House

* Update in process.

In-House Planning

Benefits

- Faster turn around.
- Most information available.
- The team owns the outcome.
- Builds state rail planning capacity.

Challenges

- Additional job for everyone involved.
- New team dynamic.
- Expertise is limited.
- Final edit comprised of one voice.

1998 State Freight Rail Plan

- Rail system description: current and abandoned lines.
- Assistance eligibility and selection of lines for evaluation.
- Analytical methodology—CBA, federal requirement.
- Rail line analyses: 7 projects, 10-year period.
- Funding priorities.
- Updated by addenda.

Washington State Freight Rail Plan: Key Components

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2010 Washington State Freight Rail Plan: Key Components

- Update freight rail system information.
- Identify freight rail issues and opportunities.
- Identify and categorize freight rail improvement projects.
- Adopt prioritizing methods and processes.
- Identify funding mechanisms and develop funding strategies.

Washington State Freight Rail Plan: System Information

Provide essential information about the freight rail system and Washington State economy to the state, regional, and local freight planners, ports, carriers, and shippers:

- Freight rail system information (facility inventory, condition inventory, abandonments, projects for improvement, and rail maps, etc.).
- Rail freight movement and economy: rail freight commodity flows and their socioeconomic impacts.
- Capacity and needs assessment.

Washington State Freight Rail Plan: Key Issues

Address key issues in Washington State freight rail development that promotes public interest:

- Port access issues and their economic impacts.
- Railroad abandonments and their economic impacts.
- State role and authority: the public interest in privately-owned rail infrastructure.

Washington State Freight Rail Plan: Freight Projects

Identify infrastructure improvements with statewide significance and investment priorities for the state's rail system:

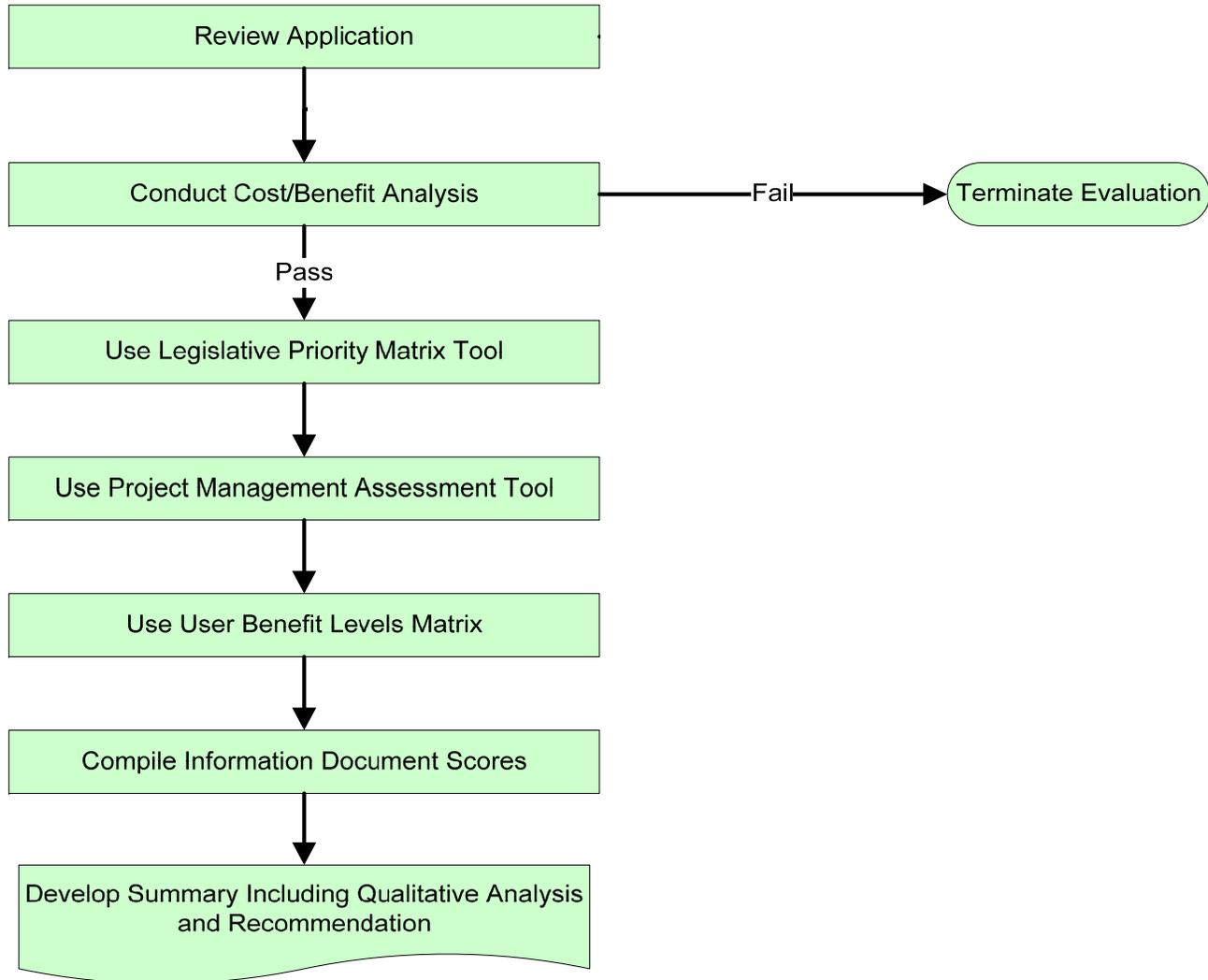
- Assess the potential of rail projects as strategic multimodal transportation solutions.
- Project lists and description by freight participants
 - Private Railroads
 - State
 - FMSIB
 - WSDOT
 - Local Public and Private Entities

Prioritizing Methods and Processes

Under ESHB 1094, the Washington State Legislature required WSDOT to develop and implement the benefit/impact evaluation methodology for rail freight projects to reflect the following priorities, in order of relative importance:

- *Economic, safety, or environmental advantages of freight movement by rail compared to alternative modes;*
- Self-sustaining economic development that creates family-wage jobs;
- Preservation of transportation corridors that would otherwise be lost;
- Increased access to efficient and cost-effective transport to market for Washington's agricultural and industrial products;
- Better integration and cooperation within the regional, national, and international systems of freight distribution; and
- Mitigation of impacts of increased rail traffic on communities.

Prioritizing Methods



Funding Sources

1998

- State
- Federal
- Regional and local public and private entities
- Private

2010

- Federal
- State:
 - WSDOT
 - Freight Mobility Strategic Investment Board
- Regional and local public and private entities
- Private

Develop funding strategies

Washington State Freight Rail Plan

How do we do it?

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Brian Calkins
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State Rail and Marine Office

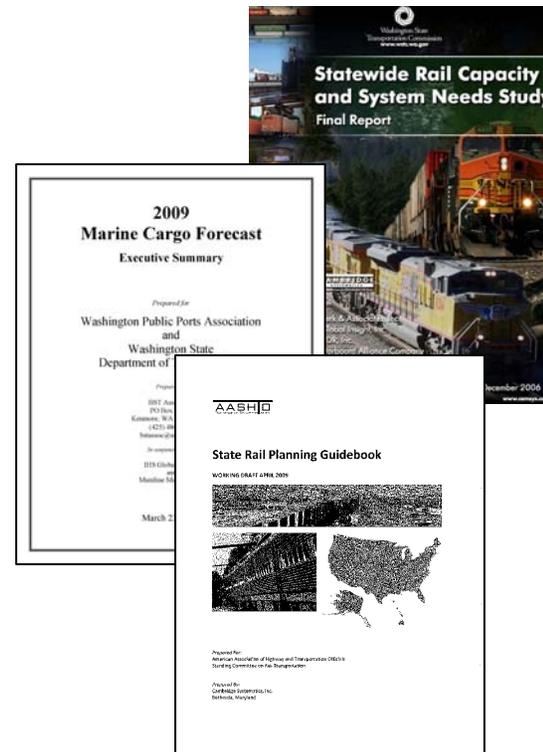
Washington State Freight Rail Plan: Key Processes

- The planning will be done by an **in-house team** with minimal consulting services.
- Develop and update information based a number of **freight and rail studies** we have completed in recent years.
- **Rely on databases** we have built and analytic capacity we have developed.
- **Work with** ports, railroads, and shippers by using surveys, phone interviews, and (possibly) workshops.
- **Rely on stakeholder input.**

Washington State Freight Rail Studies and Reports

Primary Studies, Reports, and Guidelines

- 2004 WPPA Rail Capacity and Needs Study.
- 2006 WTC Statewide Rail Capacity and Needs Study.
- 2008 WSDOT and FMSIB Joint Freight Report.
- 2009 WPPA & WSDOT Marine Cargo Forecast.
- 2009 AASHTO State Rail Planning Guidebook.



WSDOT Freight and Rail Databases and Analytic Capacity

Information will be developed by analyzing data that has recently become available to us.

- Waybill databases and commodity flow analysis.
- Rail track, crossing and intermodal facilities databases.
- Modeling, forecast, and survey capabilities.
- Rail impact/cost analysis tools.
- Access to BTS, BLS, UTC, and many other data sources.

Port-to-Rail Access/Abandonment Evaluation

Identify and evaluate: port-to-rail access and congestion issues; rail freight lines that may be abandoned or have recently been abandoned.

- Develop mail survey with option of an online questionnaire.
- Pre-test questionnaire.
- Survey ports, shippers, and freight railroads.
- Follow-up with telephone calls.
- Compile and present information in plan.

Abandonment Evaluation

Quantify the costs and benefits of maintaining rail service on those lines that are likely to be abandoned.

- Compile list of at-risk rail freight lines.
- Conduct interviews with owner/operators of rail freight lines at-risk.
- Survey shippers to assist in calculation of costs and benefits.
- Compile and present information in plan.

Capital Investment – Freight Rail Projects

- Identify freight rail infrastructure improvements needed in the next 20 years to improve safety, capacity, efficiency, mobility, and reliability.

- Type of Projects
 - Maintenance projects
 - Reliability improvements
 - System capacity enhancements
 - Intermodal connections
 - Grade crossings
 - Conversions to green fleet, facilities, and operation

20-Year Capital Project List

Needs identification

- State-identified needs.
- Carrier-identified needs.
- Master list.

Tentative procedure for identifying needs

- Start with a list of needs from the last update and existing plans.
- Survey and/or interview key stakeholders (i.e. railroads, ports, public agencies).

Identify Freight Projects with Statewide Significance

- Work with stakeholders to identify projects in existing plans.
 - Identify the essential project information.
 - Understanding funding mechanisms.
 - Develop a survey or other tool to collect the information.

- Your ideas?
 - Identify the future capital needs and projects.
 - Develop the funding strategy and mechanisms.

Stakeholder Involvement

Scott Witt

Director of State Rail and Marine

Stakeholder Involvement

- State Freight Rail Plan Advisory Committee
 - Purpose: help develop vision, clarify issues, identify needs, and inform the planning process.

- Surveys and Interviews
 - 20-year capital project list development.
 - Port-to-rail access, rail abandonment issues,
 - Vision of the plan and funding strategies.

- Meetings
 - Kick-off meeting - June 11.
 - Progress meetings.

- Draft Plan Review

Questions?

Contacts

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