Washington State Shortline Rail Inventory and Needs Assessment

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What is the Purpose of the Shortline Rail Inventory and Needs Assessment Study?

- The State Legislature, under Engrossed Substitute Senate Bill (ESSB) 6001, Sec. 222 (4) **,** directed the Washington State Department of Transportation (WSDOT) to conduct a study of the condition and needs of the state's short line rail infrastructure to support a data-driven approach to identifying system needs.

Identified needs and Recommendations

Address capacity constraints in order to meet future passenger and freight rail demands.	The state's involvement in the rail system should be focused on actions that improve the state's interests, including a thriving and diverse economy, environmental efficiency, resiliency and safety.
	The state should take an active leadership role to build on existing multistate coalitions to address rail system and corridor needs across the Pacific Northwest.
	The Washington State Department of Transportation should continue to pursue the incremental implementation of passenger rail service.
	Statewide rail stakeholders should work through regional and state transportation planning organizations on a regular basis to ensure that their needs and opportunities are understood, and are used to inform any state rail investments or planning efforts.
	WSDOT should improve recognition of rail-related needs in its highway engineering activities.

Identified needs and Recommendations

Preserve existing rail capacity and infrastructure.	Work with short-line railroads and short-line rail stakeholders to assess short-line rail needs, and create a statewide short-line rail needs inventory.
	WSDOT should consider the stewardship and upkeep history of any potential rail improvement project.
	WSDOT should seek to address rail needs in the most cost-effective manner possible.
	WSDOT should consider strategic state interest when examining the impacts of the loss of rail infrastructure.

Identified needs and Recommendations

Support economic development by providing access to people and industry.	The state should support efforts to identify those intermodal and multimodal connectors that provide "first and last mile" connectivity to businesses and locations that generate freight and passenger demand. This designation should be included in the project prioritization process.
Preserve access to global markets by ensuring access to Washington's ports.	The Washington State Freight Mobility Plan should include projects that enhance or support connectivity to Washington's deep-water, river and inland ports.

What are the Study's Key Deliverables?

1. A high-level inventory of the condition of the existing infrastructure of the short line railroads in Washington State.

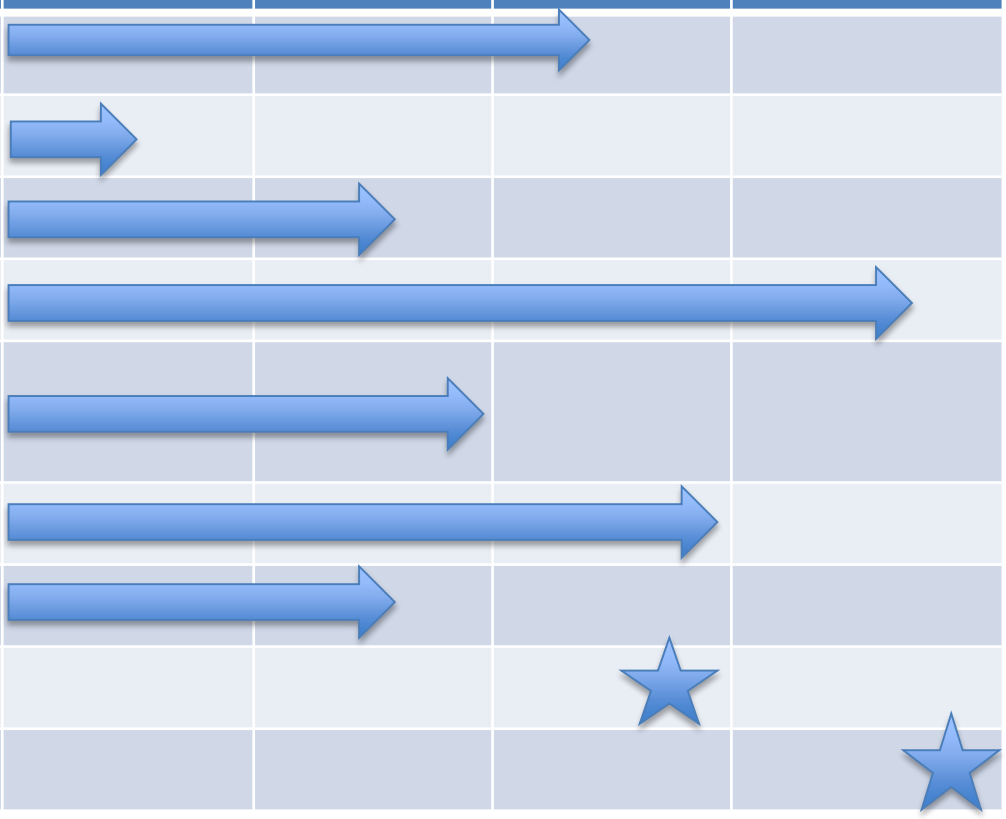
2. Three case studies illustrating how short line rail systems in good repair support regional economic development goals.

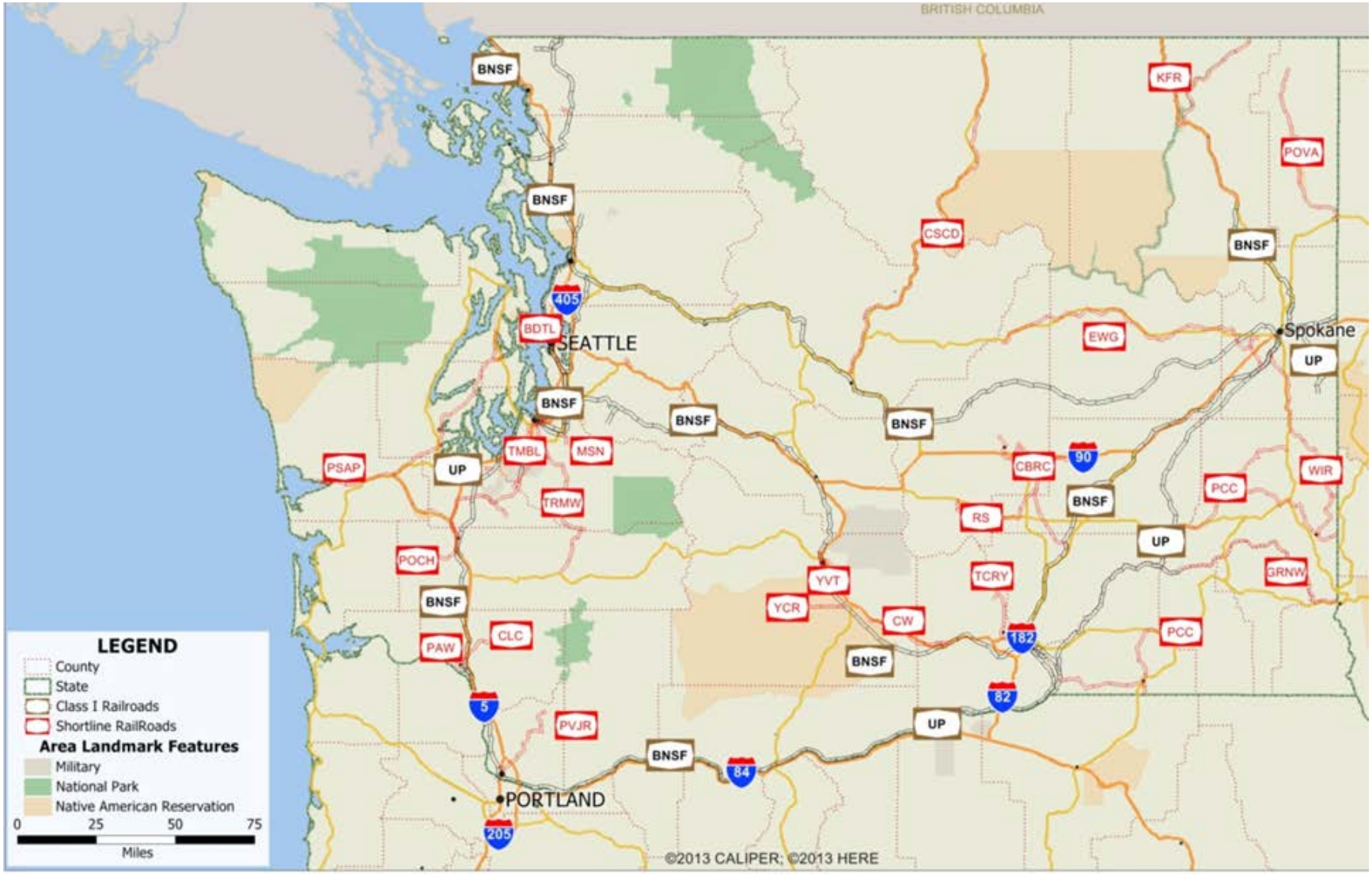
3. An analysis of the economic rationale to locate new and/or expand current short line rail load centers in Washington state.

4. An analysis of other states' freight rail programs and funding sources, to inform policy recommendations in Washington State.

What is the Short Line Study Timeline?

Deliverables	Nov/Dec 2014	Jan/Feb 2015	Mar/Apr 2015	May/June 2015
Inventory				
Survey				
Improvement Strategies				
GIS-enabled database				
Economic Benefits of Short Line Railroads				
Load Center Review				
State Benchmarking Review				
Draft Report				
Final Report				





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Parts of the Rail System:

Freight Rail

Terminals and Yards

Key links in supply chains

Short-Line Railroads

Provide access to North American freight network

Class I Railroads

Main lines of the North American freight network

Preliminary Report Focus

- Survey of Washington's Short Line Operators;
- Mechanism to Quantify a benchmark of System Needs;
- Funding and Financial Support Program Review Found in Other States;
- Regional Case Study Introduction.

Summary of Survey Responses

❑ 16 of 22 operators/owners responding thus far, representing 63% (920.5 miles) of the short line miles in the state.

- ❑ Varied Ownership
  - ❑ Public (8)
  - ❑ Private (4)
  - ❑ Holding Company (3)
  - ❑ Class I (1)

- ❑ Varied Function of the lines:
  - ❑ Shipper – Class I, Class I – Shipper;
  - ❑ Class I – Class I;
  - ❑ Class I – River, River – Class I;
  - ❑ Handling for Class I;
  - ❑ Switching or Interchange for Class I;
  - ❑ Car Storage for major regional shipper;

Self Identified Infrastructure Needs

- What capital improvements to your railroad would be most beneficial to continued rail operations?

- Does your current maintenance plan address the improvements identified in the previous question?

- Please discuss any of the above improvements you have had to forego do to a lack of funding.

Respondent Identified Need

Category	Identified Funding Need	
Ties, Main Line	$	16,519,954
Ties, Switching	$	144,722
Rail Replacement	$	43,153,109
Surfacing and Ballast	$	6,744,500
Road Crossing Rehabilitation	$	717,373
Tracks	$	319,955
Track Realignment	$	17,000,000
Structures (Bridge and culvert)	$	4,000,906
Structures (non-Bridge)	$	100,000
Equipment and Tools	$	760,500
Rail Yard Reconstruction	$	20,000,000
Interchange Improvement	$	2,000,000
Signaling	$	80,000
Undercut	$	450,000
Drainage	$	200,000
Other Undefined costs	$	10,000,000
Total Identified Need	**$**	**122,191,019**

Respondent Identified Need

- Only two respondents (one publicly owned and the other jointly funded by the Class I lines) indicated that their current revenue sources were sufficient to address these capital needs.
- Others have had to forego the needed Investments.
- Small, limited customer base, lines report having the hardest time overcoming deferred maintenance and investing in their line.

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Infrastructure Considerations

- Bridge and structural sufficiency for 286K;
- Class I interchange condition and acceptability;
- Capacity to originate/terminate 110-car unit trains.

Status Quo of Future Requirements

- Rail operational/infrastructure needs largely driven by needed interconnectivity to the mainline system.
- Widespread use of 286,000-pound (286K) cars.
- Nearly ubiquitous on the Class I rail system as they realized savings in:
    - **Capital Costs**
    - **Fuel Costs**
    - **Crew Costs**
    - **Locomotive Costs**
- Nationwide, 57% of Short line miles are 286k Capable as of 2010

Ramifications of Not Being 286k Capable

- Restricted ability to offer competitive rates as compared to truck for first and last mile movements;
- Decreased economic development opportunities and business volume;
- Increased highway maintenance costs;
- Increased highway user costs;
- Increased shipper costs.

Achieving 286k Capability on Rail Lines

- Defined Line Requirements:
  - Track at FRA Class II status (sustained operations at 25 miles per hour);
  - Capable of handling 286K rail cars.
- Rail - A rail weight of 112 lb./yd. or greater;
- Ties – A tie replacement rate of 25%;
- Ballast – An application rate of 1056 tons/mile.

Item	Unit	Unit Cost
Rail Replacement	Track Foot	$80
Joint Rehabilitation	Each	$30
Crosstie Replacement	Each	$80
Ballast Distribution	Ton	$25
Surface Line and Dress	Track Foot	$3
Ditching	Track Foot	$6
Bridge Rehabilitation	Each	$125,000
Bridge Replacement	Each	$550,000
Crossing Allowance	Each	$30,000

Washington's Current Short Line Support

- **Freight Rail Investment Bank (FRIB):** Loan Program that has been used to fund small capital improvement projects, requiring a 20% match.
  - **Fund had roughly $7.3 million allocated for the 2013-2015 biennium**
  - **Available to public sector only**
  - **Loan Maximum is $250,000**

- **Freight Rail Assistance Program (FRAP):** Grant program open to both public and private applicants.
  - **Fund had $4 million allocated for the 2013-2015 biennium**

Washington's Current Short Line Support

- **FRIB**
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- **FRAP**
  - **$4 million**

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How Do Other States Fund Freight Rail Projects?

Funding/Support Mechanism	Disbursement Strategy	Sample of States Using Mechanism
Tax Incentives	Credits	KY
	Exempt (e.g. Property Taxes)	NJ, CT, MA
Bonds	Lottery-Backed; Competitive	OR
	Competitive Grants; Obligated Allocations	NY, CA, NM, UT, VA, WI
Tax Collection (e.g. Real Property Transfer, Fuel, Sales, Rail Car Earnings, Car Rental)	Appropriated/Allocation Based on Prioritized and Assessed Need	TN, OH, OK, VA
	Local Authority Decisions (Competitive or Allocative Basis)	CA, FL,
Revolving Loan Programs	Competitive	KA, OH, WI, IA, NH
General Funds	Annual Appropriation/Subsidy	NY, OK
Grants	Competitive	OH, WI, NJ

So what is “need”?

- At what point do normal business operations of a short line railroad yield sufficient revenues to permit the freight railroad owner/operator to continue to operate at a standard of performance acceptable to clients?

- At what point can a short line railroad maintain sustainable operations without further or continuing infrastructure investment by the state?

Case Studies

- Pend Oreille Valley Railroad(POVA)
  - Owned and Operated by Port of Pend Oreille;
  - 61 Miles of Track, of which 16 are currently in operation;
  - Single Industry and customer focus: Ponderay newsprint Company.
- Tacoma Rail (TMBL & TRMW)
  - Municipally Owned division of the Tacoma's Public Utility Division;
  - 204 miles of Short line;
  - At-Cost operator that is a net tax-payer to the city, with 8% of its gross earnings delivered to city's general fund;
  - Primary commodities include International Intermodal, Crude Oil, and Automobiles in concert with operations at the Port of Tacoma.
- Columbia Basin Railroad (CBR)
  - Privately held Short Line;
  - Used RRIF to purchase 73 miles of track between Connell and Moses Lake that was previously leased from BNSF;
  - Primary movements on the line are agricultural products; both inputs and outputs.

To Come in the Final Report

- Detailed needs assessment of 286k achievement;
- Detailed evaluation of the roles the case study lines play in regional economic vitality;
- Load Center Case Studies;
- Funding option implications for the state of Washington.

For more Information:

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