

Washington State

2010-2030 Freight Rail Plan Appendices



For more information, contact:

- Call the WSDOT State Rail and Marine Office at (360) 705-7900;
- Write to the WSDOT State Rail and Marine Office at P.O. Box 47407, Olympia, WA 98504-7407;
- Fax your comments to (360) 705-6821; or
- E-mail your comments to rail@wsdot.wa.gov



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Washington State 2010-2030 Freight Rail Plan Appendices

Prepared by

**Washington State
Department of Transportation
State Rail and Marine Office**

December 2009



**Washington State
Department of Transportation**

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Appendix 1-A: State and Federal Requirements

State Requirements

RCW 47.76.220

State rail plan – Contents.

- (1) The department of transportation shall prepare and periodically update a state rail plan, the objective of which is to identify, evaluate, and encourage essential rail services. The plan shall:
 - (a) Identify and evaluate mainline capacity issues;
 - (b) Identify and evaluate port-to-rail access and congestion issues;
 - (c) Identify and evaluate those rail freight lines that may be abandoned or have recently been abandoned;
 - (d) Quantify the costs and benefits of maintaining rail service on those lines that are likely to be abandoned;
 - (e) Establish priorities for determining which rail lines should receive state support. The priorities should include the anticipated benefits to the state and local economy, the anticipated cost of road and highway improvements necessitated by the abandonment or capacity constraints of the rail line, the likelihood the rail line receiving funding can meet operating costs from freight charges, surcharges on rail traffic, and other funds authorized to be raised by a county or port district, and the impact of abandonment or capacity constraints on changes in energy utilization and air pollution;
 - (f) Identify and describe the state's rail system;
 - (g) Prepare a state freight rail system map;
 - (h) Identify and evaluate rail commodity flows and traffic types;
 - (i) Identify lines and corridors that have been rail banked or preserved; and
 - (j) Identify and evaluate other issues affecting the state's rail traffic.
- (2) The state rail plan may be prepared in conjunction with the rail plan prepared by the department pursuant to the federal Railroad Revitalization and Regulatory Reform Act.

Federal Requirements

Passenger Rail Investment and Improvement Act of 2008 PL 110-432

H. R. 2095

One Hundred Tenth Congress of the United States of America

AT THE SECOND SESSION

Begun and held at the City of Washington on Thursday, the third day of January, two thousand and eight

An Act

To amend title 49, United States Code, to prevent railroad fatalities, injuries, and hazardous materials releases, to authorize the Federal Railroad Safety Administration, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

DIVISION B—AMTRAK

SEC. 1. SHORT TITLE; TABLE OF CONTENTS.

- (a) **SHORT TITLE.**—This division may be cited as the “Passenger Rail Investment and Improvement Act of 2008”.
- (b) **TABLE OF CONTENTS.**—The table of contents for this division is as follows:
 - Sec. 1. Short title; table of contents.
 - Sec. 2. Amendment of title 49, United States Code.
 - Sec. 3. Definition.

TITLE I—AUTHORIZATIONS

- Sec. 101. Authorization for Amtrak capital and operating expenses.
- Sec. 102. Repayment of long-term debt and capital leases.
- Sec. 103. Authorization for the Federal Railroad Administration.

TITLE II—AMTRAK REFORM AND OPERATIONAL IMPROVEMENTS

- Sec. 201. National railroad passenger transportation system defined.
- Sec. 202. Amtrak board of directors.
- Sec. 203. Establishment of improved financial accounting system.
- Sec. 204. Development of 5-year financial plan.
- Sec. 205. Restructuring long-term debt and capital leases.
- Sec. 206. Establishment of grant process.
- Sec. 207. Metrics and standards.
- Sec. 208. Methodologies for Amtrak route and service planning decisions.
- Sec. 209. State-supported routes.
- Sec. 210. Long-distance routes.

- Sec. 211. Northeast Corridor state-of-good-repair plan.
- Sec. 212. Northeast Corridor infrastructure and operations improvements.
- Sec. 213. Passenger train performance.
- Sec. 214. Alternate passenger rail service pilot program.
- Sec. 215. Employee transition assistance.
- Sec. 216. Special passenger trains.
- Sec. 217. Access to Amtrak equipment and services.
- Sec. 218. General Amtrak provisions.
- Sec. 219. Study of compliance requirements at existing intercity rail stations.
- Sec. 220. Oversight of Amtrak's compliance with accessibility requirements.
- Sec. 221. Amtrak management accountability.
- Sec. 222. On-board service improvements.
- Sec. 223. Incentive pay.
- Sec. 224. Passenger rail service studies.
- Sec. 225. Report on service delays on certain passenger rail routes.
- Sec. 226. Plan for restoration of service.
- Sec. 227. Maintenance and repair facility utilization study.
- Sec. 228. Sense of the Congress regarding the need to maintain Amtrak as a national passenger rail system.

TITLE III—INTERCITY PASSENGER RAIL POLICY

- Sec. 301. Capital assistance for intercity passenger rail service.
- Sec. 302. Congestion grants.
- Sec. 303. State rail plans.**
- Sec. 304. Tunnel project.
- Sec. 305. Next generation corridor train equipment pool.
- Sec. 306. Rail cooperative research program.
- Sec. 307. Federal rail policy.

TITLE IV—MISCELLANEOUS PROVISIONS

- Sec. 401. Commuter rail mediation.
- Sec. 402. Routing efficiency discussions with Amtrak.
- Sec. 403. Sense of Congress regarding commuter rail expansion.
- Sec. 404. Locomotive biofuel study.
- Sec. 405. Study of the use of biobased technologies.
- Sec. 406. Cross-border passenger rail service.
- Sec. 407. Historic preservation of railroads.

TITLE V—HIGH-SPEED RAIL

- Sec. 501. High-speed rail corridor program.
- Sec. 502. Additional high-speed rail projects.

TITLE VI—CAPITAL AND PREVENTIVE MAINTENANCE
PROJECTS FOR WASHINGTON METROPOLITAN AREA
TRANSIT AUTHORITY

Sec. 601. Authorization for capital and preventive maintenance projects for Washington Metropolitan Area Transit Authority.

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SEC. 303. STATE RAIL PLANS.

(a) IN GENERAL.—Part B of subtitle V is amended by adding at the end the following:

“CHAPTER 227—STATE RAIL PLANS

“Sec.

“22701. Definitions.

“22702. Authority.

“22703. Purposes.

“22704. Transparency; coordination; review.

“22705. Content.

“22706. Review.

“§ 22701. Definitions

“In this subchapter:

“(1) PRIVATE BENEFIT.—

“(A) IN GENERAL.—The term ‘private benefit’ —

“(i) means a benefit accrued to a person or private entity, other than Amtrak, that directly improves the economic and competitive condition of that person or entity through improved assets, cost reductions, service improvements, or any other means as defined by the Secretary; and
“(ii) shall be determined on a project-by-project basis, based upon an agreement between the parties.

“(B) CONSULTATION.—The Secretary may seek the advice of the States and rail carriers in further defining this term.

“(2) PUBLIC BENEFIT.—

“(A) IN GENERAL.—The term ‘public benefit’ —

“(i) means a benefit accrued to the public, including Amtrak, in the form of enhanced mobility of people or goods, environmental protection or enhancement, congestion mitigation, enhanced trade and economic development, improved air quality or land use, more efficient energy use, enhanced public safety or security, reduction of public expenditures due to improved transportation efficiency or infrastructure preservation, and any other positive community effects as defined by the Secretary; and
“(ii) shall be determined on a project-by-project basis, based upon an agreement between the parties.

“(B) CONSULTATION.—The Secretary may seek the advice of the States and rail carriers in further defining this term.

“(3) STATE.—The term ‘State’ means any of the 50 States and the District of Columbia.

“(4) STATE RAIL TRANSPORTATION AUTHORITY.—The term ‘State rail transportation authority’ means the State agency or official responsible under the direction of the Governor of the State or a State law for preparation, maintenance, coordination, and administration of the State rail plan.

“§ 22702. Authority

“(a) IN GENERAL.—Each State may prepare and maintain a State rail plan in accordance with the provisions of this chapter.

“(b) REQUIREMENTS.—The Secretary shall establish the minimum requirements for the preparation and periodic revision of a State rail plan, including that a State shall:

“(1) establish or designate a State rail transportation authority to prepare, maintain, coordinate, and administer the plan;

“(2) establish or designate a State rail plan approval authority to approve the plan;

“(3) submit the State’s approved plan to the Secretary of Transportation for review; and

“(4) revise and resubmit a State-approved plan no less frequently than once every 5 years for reapproval by the Secretary.

“§ 22703. Purposes

“(a) PURPOSES.—The purposes of a State rail plan are as follows:

“(1) To set forth State policy involving freight and passenger rail transportation, including commuter rail operations, in the State.

“(2) To establish the period covered by the State rail plan.

“(3) To present priorities and strategies to enhance rail service in the State that benefits the public.

“(4) To serve as the basis for Federal and State rail investments within the State.

“(b) COORDINATION.—A State rail plan shall be coordinated with other State transportation planning goals and programs, including the plan required under section 135 of title 23, and set forth rail transportation’s role within the State transportation system.

“§ 22704. Transparency; coordination; review

“(a) PREPARATION.—A State shall provide adequate and reasonable notice and opportunity for comment and other input to the public, rail carriers, commuter and transit authorities operating in, or affected by rail operations within the State, units of local government, and other interested parties in the preparation and review of its State rail plan.

“(b) INTERGOVERNMENTAL COORDINATION.—A State shall review the freight and passenger rail service activities and initiatives by regional planning agencies, regional transportation authorities, and municipalities within the State, or in the region in which the State is

located, while preparing the plan, and shall include any recommendations made by such agencies, authorities, and municipalities as deemed appropriate by the State.

“§ 22705. Content

“(a) IN GENERAL.—Each State rail plan shall, at a minimum, contain the following:

“(1) An inventory of the existing overall rail transportation system and rail services and facilities within the State and an analysis of the role of rail transportation within the State’s surface transportation system.

“(2) A review of all rail lines within the State, including proposed high-speed rail corridors and significant rail line segments not currently in service.

“(3) A statement of the State’s passenger rail service objectives, including minimum service levels, for rail transportation routes in the State.

“(4) A general analysis of rail’s transportation, economic, and environmental impacts in the State, including congestion mitigation, trade and economic development, air quality, land use, energy-use, and community impacts.

“(5) A long-range rail investment program for current and future freight and passenger infrastructure in the State that meets the requirements of subsection (b).

“(6) A statement of public financing issues for rail projects and service in the State, including a list of current and prospective public capital and operating funding resources, public subsidies, State taxation, and other financial policies relating to rail infrastructure development.

“(7) An identification of rail infrastructure issues within the State that reflects consultation with all relevant stakeholders.

“(8) A review of major passenger and freight intermodal rail connections and facilities within the State, including seaports, and prioritized options to maximize service integration and efficiency between rail and other modes of transportation within the State.

“(9) A review of publicly funded projects within the State to improve rail transportation safety and security, including all major projects funded under section 130 of title 23.

“(10) A performance evaluation of passenger rail services operating in the State, including possible improvements in those services, and a description of strategies to achieve those improvements.

“(11) A compilation of studies and reports on high-speed rail corridor development within the State not included in a previous plan under this subchapter, and a plan for funding any recommended development of such corridors in the State.

“(12) A statement that the State is in compliance with the requirements of section 22102.

“(b) LONG-RANGE SERVICE AND INVESTMENT PROGRAM.—

“(1) PROGRAM CONTENT.—A long-range rail investment program included in a State rail plan under subsection (a)(5) shall, at a minimum, include the following matters:

“(A) A list of any rail capital projects expected to be undertaken or supported in whole or in part by the State.

“(B) A detailed funding plan for those projects.

“(2) PROJECT LIST CONTENT.—The list of rail capital projects shall contain:

“(A) a description of the anticipated public and private benefits of each such project; and

“(B) a statement of the correlation between—

“(i) public funding contributions for the projects; and

“(ii) the public benefits.

“(3) CONSIDERATIONS FOR PROJECT LIST.—In preparing the list of freight and intercity passenger rail capital projects, a State rail transportation authority should take into consideration the following matters:

“(A) Contributions made by non-Federal and non-State sources through user fees, matching funds, or other private capital involvement.

“(B) Rail capacity and congestion effects.

“(C) Effects on highway, aviation, and maritime capacity, congestion, or safety.

“(D) Regional balance.

“(E) Environmental impact.

“(F) Economic and employment impacts.

“(G) Projected ridership and other service measures for passenger rail projects.

“§ 22706. Review

“The Secretary shall prescribe procedures for States to submit State rail plans for review under this title, including standardized format and data requirements. State rail plans completed before the date of enactment of the Passenger Rail Investment and Improvement Act of 2008 that substantially meet the requirements of this chapter, as determined by the Secretary, shall be deemed by the Secretary to have met the requirements of this chapter.”

(b) CONFORMING AMENDMENT.—The chapter analysis for subtitle V is amended by inserting the following after the item relating to chapter 223:

Chapter 227, § 22701 Definitions.



Appendix 1-B: Public Participation and Stakeholder Involvement

The Washington State Department of Transportation (WSDOT) benefits from broader interaction with the public and rail stakeholders. The public participation and stakeholder involvement component of this plan meets state and federal requirements. It educates citizens and rail stakeholders about the role of rail in a balanced transportation system. And it collects and synthesizes comments from the public and rail stakeholder groups to assist in developing the vision, projects, prioritization, financing, and implementation of the state rail plan.

In the development of the plan, an advisory committee was formed, involving as many stakeholders as possible. Three advisory committee meetings were held, along with one workshop and one public open house. Progress reports and opportunities for public comments and discussion were provided. After the advisory committee meetings, the draft plan was available for two weeks of public review and comment.

State Freight Rail Plan Advisory Committee

WSDOT is required by federal and state statutes to provide “adequate and reasonable notice and opportunity for comment and other input to the public, rail carriers, commuter and transit authorities operating in, or affected by rail operations within the state, units of local government, and other interested parties in the preparation and review of the state rail plan.” Ideally much of the opportunity for comment and review takes place through the State Freight Rail Plan Advisory Committee (Advisory Committee), which is the rail advisory body for this planning project.

The Advisory Committee is a group of key stakeholder representatives focused on plan development. The Advisory Committee roles are:

1. To help develop a vision for the freight rail plan.
2. To provide assistance to update information for the freight rail system, capacity, and needs.
3. To help identify and assess port access and rail abandonment issues.
4. To help WSDOT understand concerns of local communities and organizations.
5. To facilitate information sharing.

Stakeholders invited to participate in the Advisory Committee included Class I railroads, short-line railroads, other carriers, public transportation

providers, rail operators, rail logistics, rail and other transportation mode advocates, rail research, ports, cities, towns, counties, tribes, federal and state agencies, WSDOT offices, regional planning organizations (e.g. MPO/RTPOs), shippers, and labor. A list of Advisory Committee member organizations that accepted the invitation for participation in this plan is provided in Exhibit 1B-1.

Exhibit 1B-1: Advisory Committee Member Organizations

AgVentures NW, LLC	Port of Tacoma
All Aboard Washington	Port of Vancouver
Ballard Terminal RR. (BDTL)	Portland Vancouver Junction RR (PVJR)
Benton-Franklin Council of Gov.	Puget Sound & Pacific RR (PSAP)
BNSF Railway (BNSF)	Puget Sound Regional Council (PSRC)
Brotherhood of Locomotive Engineers and Trainmen	Rail Management, Inc. (RMI)
CWCOG/SWRTPPO	Spokane Regional Trans. Council
City of Richland	SW WA Regional Trans. Council
Clark County	Tacoma Rail
Columbia Basin Railroad (CBRW)	Thurston Regional Plan Council (TRPC)
Cowlitz Indian Tribe	Tulalip Tribes
Eastern Washington Gateway Railroad (EWG)	Union Pacific Railroad UP
Eastside Transportation Assoc.	Utilities & Transportation Comm. (UTC)
Freight Mobility Strategic Investment Board (FMSIB)	Washington Dept. of AHP (DAHP)
ILWU Puget Sound Dist. Council	Washington Dept. of Commerce
Kalispel Tribe	Washington Legislature
Lummi Nation and TTPO	Washington Public Ports Assoc. (WPPA)
McGregor Company	Washington St. Dept. of Ag. (WSDA)
Meeker Southern Railroad	WA St. Transportation Comm. (WSTC)
Nisqually Tribe	Whatcom Council of Governments
NW Grain Growers	Woodland Trail Greenway Assoc
NW Tribal Technical Assist. Pgm.	WSDOT – Budget Office
Pacific Northwest Farmers Coop	WSDOT – Environmental Svcs.
Parsons Brinckerhoff	WSDOT – Freight Systems Div.
Port of Everett	WSDOT – Government Relations
Port of Grays Harbor	WSDOT – Hwys. & Local Pgms. (H&LP)
Port of Kalama	WSDOT – Northwest Region
Port of Moses Lake	WSDOT – Public Transportation (PTD)
Port of Olympia	WSDOT – South Central Region
Port of Ridgefield	WSDOT – State Rail and Marine Office
Port of Royal Slope	WSDOT – Strat. Planning & Pgms
Port of Seattle	WSDOT – Urban Planning Office (UPO)
	YVCOG

Three Advisory Committee meetings were held:

- June 11 at WSDOT Headquarters in Olympia.
- September 30 at WSDOT Headquarters in Olympia.
- October 6 in Moses Lake.

In addition, a workshop was held with Advisory Committee participants and other stakeholders on August 5 at WSDOT Headquarters in Olympia.

The Advisory Committee participants for the meetings are shown in Exhibits 1B-2, 1B-3, and 1B-4.

Electronic Communication Standards

WSDOT uses a standard set of electronic communication tools for communication and outreach that includes a project Web page (www.wsdot.wa.gov/Freight/Rail/WashingtonStateFreightRailPlan.htm), e-mail, and a monthly e-newsletter. The State Freight Rail Plan Web page includes information and links to the meeting information, the surveys, and contacts. E-mail is the primary communication tool between WSDOT and stakeholders; e-mail is sent as early as possible to provide ample response time. Mail is used occasionally. The WSDOT State Rail and Marine Office monthly e-newsletter provides planning project updates to registered subscribers.

Outreach Activities

Outreach activities offer additional opportunities to engage a larger group of stakeholders as well as the general public and receive their feedback.

Key Stakeholder Interviews and Presentations

WSDOT State Rail and Marine Office staff and management conducted a limited amount of interviews to collect specific information about the state freight rail plan. Phone and in-person interviews included key external stakeholders (Port of Tacoma, Tacoma Rail, Port of Seattle, Benton-Franklin-Walla Walla Regional Transportation Planning Organization) and internal stakeholders (WSDOT Freight Systems Division, WSDOT Strategic Planning and Programs Office). WSDOT management also gave presentations to internal and external organizations (WSDOT Executive Team, American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Rail Transportation, Western Freight Roundtable) about the planning project. Documentation about these interviews and presentations is provided later in this appendix.

Exhibit 1B-2: June 11, 2009 Advisory Committee Meeting Attendees

Attendee	Organization
Lloyd H. Flem	All Aboard Washington
James Forgette	BDTL
Terry Finn	BNSF
Rosemary Siipola	CWCOG/SWRTPO
John Howell	EWG
Steve Gibson	EWG
Karen Schmidt	FMSIB
Gary Nelson	Port of Grays Harbor
Mindi Linquist	Port of Kalama
Brent Grening	Port of Ridgefield
Dan Burke	Port of Seattle
Brian Mannelly	Port of Tacoma
Mike Reilly	Port of Tacoma
Wayne Harner	Port of Tacoma
Todd Coleman	Port of Vancouver
Kevin Spradlin	PSAP
Sean Ardussi	PSRC
Eric Temple	PVJR
Steve Murray	RMI
Lynda David	RTC
Dale King	Tacoma Rail
Richard Myers	WPPA
Brad Avy	WSDA
Eric Hurlburt	WSDA
Elizabeth Phinney	WSDOT
Jeff Schultz	WSDOT
Julie Rodwell	WSDOT
Kevin Jeffers	WSDOT
Megan Beeby	WSDOT
Mike Rowswell	WSDOT
Aaron Butters	WSDOT – H&LP
Jerry Ayres	WSDOT – PTD
Thomas Noyes	WSDOT – UPO
WSDOT State Rail and Marine Office Staff	
Andrew Wood	Lynn Scroggins
Brent Thompson	Scott Witt
Brian Calkins	Teresa Graham
George Xu	

**Exhibit 1B-3: September 30, 2009 Advisory Committee
Western Washington Meeting Attendees**

Attendee	Organization
Terry Finn	BNSF
Mike Elliott	Brotherhood of Locomotive Engineers & Trainmen
Fred Abraham	Clark County
Russ Holter	DAHP
Will Knedlik	Eastside Transportation Assoc.
Mark K. Ricci	Endeavors Consulting
Jeff Davis	ILWU
Jim Longley	Nisqually Tribe
Mike Zachary	Parsons Brinkerhoff
Gary Nelson	Port of Grays Harbor
Mark Wilson	Port of Kalama
Jim Knight	Port of Olympia
Clare Gallagher	Port of Seattle
Dan Burke	Port of Seattle
Sean Eagan	Port of Tacoma
Wayne Harner	Port of Tacoma
Alan Hardy	Tacoma Rail
Jailyn Brown	TRPC
Brock Nelson	UP
Eric Johnson	WPPA
Eric Hurlburt	WSDA
Jerry Ayres	WSDOT – PTD
Thomas Noyes	WSDOT Urban Planning
WSDOT State Rail and Marine Office Staff	
George Xu	Scott Witt
Lynn Scroggins	Teresa Graham

**Exhibit 1B-4: October 6, 2009 Advisory Committee
Eastern Washington Meeting Attendees**

Attendee	Organization
Len Pavelka	Benton-Franklin COG
Scott Williams	CBRW
Tim Kelly	CBRW
John Howell	EWG
Dave Gordon	Northwest Grain Growers
Norm Ruhoff	PNW Farmers Coop
Craig Baldwin	Port of Moses Lake
Alan Schrom	Port of Royal Slope
Steve Murray	RMI
Glenn Miles	SRTC
John Gruber	WSDOT South Central
WSDOT State Rail and Marine Office Staff	
George Xu	Teresa Graham
Lynn Scroggins	

Surveys

WSDOT designed and conducted two surveys in Web-based and PDF formats to collect information about statewide needs for freight rail capital improvements (Projects Survey) and to identify railroad lines at-risk of abandonment (Abandonment Survey). Notices and links were sent to the Advisory Committee and key stakeholders using WSDOT electronic communication standards that included e-mail, Web page links, and e-newsletter. The surveys were also promoted at Advisory Committee and other key stakeholder meetings. Chapter 5 contains Abandonment Survey result summaries. Chapter 8 contains project list summaries that were based, in part, on the Projects Survey.

Public Open House

WSDOT held a public open house on October 22, 2009, to meet federal and state requirements and to provide information about the freight rail plan to stakeholders and the general public. The event included displays from past Advisory Committee meetings, handouts, sample documents, and comment sheets. In addition to electronic communication, the open house was advertised in Seattle, Vancouver, Olympia, Spokane, and Tri-Cities newspapers. WSDOT State Rail and Marine Office staff and management were on-hand to answer questions and discuss the planning project. The list of attendees is shown in Exhibit 1B-5.

Exhibit 1B-5: October 22, 2009 Open House Attendees

Attendees	
Adele McCormick	Jailyn Brown
Cathrine Martin	Jerry Ayres
Cecelia Jenkins	Jim Amador
Cliff Hall	Jim Zabel
Curtis Shuck	Kari Qvigstad
Cyndi Booze	Kathy Murray
David Smelser	Mike Beehler
Don Miller	Mindi Linqvist
Edward Berntsen	Paula Connelley
Ernest W. Combs	Russell Holter
Forest Suttmiller	Scott Mills
Frank Kirkbride	Teri Hotsko
George L. Barner, Jr.	Thomas Hume
Greg Roche	Tom Palmateer
J. T. Wilcox	Virginia Stone

Workshop

WSDOT held a workshop on August 5, 2009, at WSDOT Headquarters in Olympia to help develop the vision statement and goals matrix for the state freight rail plan. The Advisory Committee and other key stakeholders were invited to participate in the workshop. The workshop attendees are shown in Exhibit 1B-6.

FRA Reporting

WSDOT submitted three progress reports and will submit the final plan to the United States Department of Transportation (USDOT) Federal Railroad Administration (FRA) for review. The progress reports documented activity to date and sought guidance and feedback.

Government-to-Government Tribal Consultation

The WSDOT Secretary's Executive Order requires WSDOT employees to consult with tribes on all decisions that may affect tribal rights and interests. Per tribal protocol, WSDOT mailed two sets of letters to statewide tribal leaders and their planning managers informing them about the State Freight Rail Plan, inviting their participation, and announcing meetings. WSDOT also offered to meet with tribes individually to discuss their comments or concerns with the plan. Chapter 6 contains information about tribal governments.

**Exhibit 1B-6: August 5, 2009 Advisory Committee
Workshop Attendees**

Attendee	Organization
Lloyd H. Flem	All Aboard Washington
Terry Finn	BNSF
Rosemary Siipola	CWCOG/SWRTP0
Russ Holter	DAHP
Win Knedlik	Eastside Transportation Assoc.
John Howell	EWG
Steve Gibson	EWG
Karen Schmidt	FMSIB
Jeanine Viscount	Parsons Brinkerhoff
Carl Wollebek	Port of Everett
Mark Wilson	Port of Kalama
Mindi Linqvist	Port of Kalama
Craig Baldwin	Port of Moses Lake
Jim Amador	Port of Olympia
Christine Wolf	Port of Seattle
Clare Gallagher	Port of Seattle
Brian Mannelly	Port of Tacoma
Sean Egan	Port of Tacoma
Curtis Shuck	Port of Vancouver
Eric Temple & kids	PVJR
Lynda David	RTC
Glenn Miles	SRTC
Dale King	Tacoma Rail
Jailyn Brown	TRPC
Brock Nelson	UP
Eric Johnson	WPPA
Brad Avy	WSDA
Jerry Ayres	WSDOT – PTD
John Gruber	WSDOT – South Central
WSDOT State Rail and Marine Office Staff	
George Xu	Scott Witt
Lynn Scroggins	Teresa Graham

Appendix 2: Detailed Goal Matrix

The detailed goals matrix includes the goals, objectives, strategies, and actions necessary to achieve the vision of the *Washington State 2010-2030 Freight Rail Plan*. It was developed in the stakeholder and public involvement process described in Chapter 2.

Please Note: The detailed goals matrix in this appendix is an *interim document*. The final set of goals, objectives, strategies, and actions are described in Chapter 2.

Goal 1: Support Washington's economic competitiveness and economic viability through strategic freight rail partnerships.		
Objectives	Strategies	Actions
To better understand the statewide industry needs for rail transportation.	Increase understanding of the competitive positions of the state's shippers and ports using Washington's freight rail system vs. other modes of transportation.	Carry out needs analysis to support emerging and existing industries to ensure the freight rail system supports Washington's ports and rail-dependent industries, where financially supported.
To better integrate freight rail planning at all levels of government.	Increase coordination of corridor-level freight rail planning within Washington State.	Work with Washington's MPOs, RTPOs, and Tribes to integrate freight rail into future regional transportation plans.
To provide access to national markets for Washington products and cargo entering the US through Washington ports.	Support multistate freight rail corridor strategic planning partnerships.	Work with public and private sector partners in states along any appropriate national corridor to eliminate bottlenecks and improve capacity and velocity inside and outside of Washington State.
To better coordinate with private sector partners.	Support and enhance economic partnerships between Washington State and the rest of the nation and its trading partners.	Establish a process or committee to work and communicate with the ports and industry representatives to coordinate activities at the regional, state, and national level on needed projects, programs, and policy decisions.
To better address barriers to efficient use of freight rail in Washington.	Lead and coordinate with Washington's ports, shippers and industry on a continuing basis to identify infrastructure, regulatory, and administrative barriers to their efficient use of the freight rail system.	On an ongoing basis and at designated intervals, update information with representatives from ports, shippers, railroads, and industry to identify constraints. Develop an action plan to address those issues over which WSDOT has authority.
To have a strategic prioritization of barriers to efficient use of freight rail in Washington State, with stonger public-private partnerships and freight rail infrastructure at the local, regional, corridor, national, and international levels.	Expand the state role to manage, coordinate, and facilitate strategic freight rail infrastructure improvements and investments that are in the public interest.	Increase the state capacity to develop and manage freight rail system information, research capacity, and data capacity that improves oversight and encourages funding for priority freight rail development.
To improve system and project assessment and evaluation processes to support state goals and assist the decision-making process.		
To have a broader understanding of railroad system benefits and investments.		Increase public awareness of freight rail as a vital mode of transportation within the supply chain.
To have an integrated plan that is recognized within the National Rail Plan.	Develop the criteria for corridor level freight rail transportation to integrate into the National Rail Plan.	Lead the planning effort to integrate with partners.

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Goal 2: Preserve the ability of Washington's freight rail system to efficiently serve the needs of its customers.		
Objectives	Strategies	Actions
To preserve the functionality of the existing system.	Assist the Class 1 railroads' efforts to maintain and preserve the functionality of mainline tracks, bridges, and rail yards.	Work with the Class 1 railroads and other partners to identify those system components at risk that can benefit from public support.
		Support the efforts of Class 1 railroads to compete for state and federal funding for major capacity preservation projects, when appropriate.
To continue to provide access to the mainline rail system.	Assist short-line railroads in preserving efficient access to the mainline, ensuring system viability and continuity.	Provide financial assistance to short-line railroads, maintaining and preserving essential rail lines to prevent abandonment, when appropriate.
To create sustainable funding sources for rail preservation and maintenance		Lead the development of rail corridor maintenance and preservation plans that include funding strategies
To support long-term economic vitality and diversity.	Work with stakeholders and partners to ensure long-term preservation of existing industrial land, freight rail corridors, and rights of way for future use.	Integrate freight rail system development, land use planning and policies, public-private partnerships, and funding strategies consistent with the state vision and policy goals to protect and grow freight mobility.
To retain industrial lands and the jobs needed to support them.		Work with ports and railroads to protect the functionality and viability of existing connections between port terminals, intermodal rail yards, and mainline tracks.
To better manage state-owned railroad corridors, returning them to active service as soon as feasible.		Work with short-line and mainline railroads to allow compatible interim use of rail corridor right of way (i.e. rail trails) within statutory limits, until such time that the right of way is returned to active rail use.
To preserve opportunities of abandoned lines for future rail service.		Acquire rail corridors scheduled for abandonment that have the potential to be reactivated in the future.
To preserve opportunities of abandoned lines for other public use of corridors (i.e. rail trails).		

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Goal 3: Facilitate freight rail system capacity increases to improve mobility, reduce congestion, and meet the growing needs of Washington's freight rail users, when economically justified.

Objectives	Strategies	Actions
To better understand future freight rail demands.	Continue efforts to regularly evaluate freight rail capacity needs.	Continue working with partners with an interest in freight rail capacity to determine future needs. Assess capacity and use the results to support prioritized investment in freight rail capacity improvements.
To continue reducing congestion, eliminating port access bottlenecks, and increasing reliability and mobility.	Create additional capacity, improve connectivity, and improve operational efficiency by making, or supporting targeted infrastructure investments.	Invest in infrastructure development projects that enable cost effective, smooth, and efficient transport of freight through multimodal corridors and hubs (i.e. lines, ports, industrial areas).
		Identify and prioritize projects that improve mainline capacity, eliminate bottlenecks and improve mainline access for ports and other freight rail traffic generators.
To continue making process improvements.		Support the efforts of Washington's freight rail providers to solicit state or federal funds for projects that provide needed new capacity, where strategically appropriate.
To reduce idling of cars and trucks and improve overall safety on rail and roads, where appropriate.	Pursue grade separation of roads and rails, where appropriate.	Identify grade separation projects that should be included in national, tribal, state, regional, and local transportation plans.
To improve freight and passenger rail mobility.	Support the implementation of passenger rail projects where investments also improve freight rail mobility.	Work with passenger rail agencies and support funding of projects that support freight movement.
To increase public support for public investment in the freight rail system.	Utilize and update existing project assessment tools to include performance measures and benefit-cost analysis to prioritize projects.	Utilize and update the current freight rail project evaluation methodology to prioritize projects.
	Promote public awareness of and support for freight rail investments that provide economic, mobility, safety, and environmental benefits.	The process should include an effort to seek public input and develop public support for priority projects.
To increase federal freight rail funding and increase ability to develop multi-year projects.	Support efforts to develop viable federal funding sources for freight rail projects with public benefits.	Lead efforts to position Washington's freight rail system for future federal funding with railroads, ports, shippers, and industry.
		Coordinate with multistate stakeholders to obtain federal funding for priority projects along multistate corridors (Northern Tier).
		Work with MPOs to facilitate inclusion of appropriate freight rail projects in regional transportation plans.
To increase state funding and implementation of priority freight rail projects.	Support efforts to enhance state funding sources for freight rail projects with public benefits.	Review programs like the FAST corridor program and determine WSDOT's role in facilitating public-private partnerships in funding freight rail projects in Washington.
		Develop a statewide freight rail advisory body to promote freight rail development

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Goal 4: Take advantage of freight rail's modal energy efficiency to reduce the negative environmental impact of freight movement in Washington.

Objectives	Strategies	Actions
To improve community environment and health.	Identify and implement freight rail projects which will reduce truck trips and decrease targeted emissions, where economically viable.	Implement rail projects that reduce truck traffic when economically feasible.
	Encourage rail partners to invest in technologies to reduce their fuel consumption and related air emissions.	Encourage increased use of locomotive anti-idling devices, electric support equipment and reduction of wheel/track friction to decrease fuel consumption and air emissions.
		Encourage use of environmentally friendly switching locomotives in port areas and other rail yards close to residential areas.

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Goal 5: Address the safety and security of the freight rail system and make enhancements, where appropriate.

Objectives	Strategies	Actions
To reduce numbers of rail-highway incidents.	Continue to identify new areas of focus to enhance rail transportation safety.	Continue to support safety improvements of rail-highway crossings, signal systems, rail lines, and rail facilities.
To reduce the numbers of rail-highway, rail-pedestrian, rail-rail, and trespassing incidents.		Expand outreach and education to new and existing stakeholder groups.
To meet federal requirements.	Partner with the Class 1s' efforts to meet the federal mandate and a support railroad requirement to install positive train control systems on mainlines	Continue coordination and support of positive train control systems development.
To improve pedestrian safety and reduce liability.	Continue the Operation Lifesaver partnership to educate the public about rail safety.	Work with railroads and other partners to educate the public and reduce pedestrian trespassing.
To improve emergency recovery and prevention.	Continue emergency management development.	Work with partners to address rail safety before, during, and after emergencies.
		Review best practices, consult with area experts, and develop a list of temporary rail-highway grade crossing closures and alternative routes in the event of natural and man-made disasters.
To improve the security of the state rail system in its ability to deter or respond to attacks on rail facilities or domestic targets, while ensuring mobility for all users.	Address rail system security and homeland security.	Support railroads, Amtrak, and local law enforcement agencies to identify and implement rail security measures based on guidance from existing federal law (PL 110-432). Identify partnerships and other funding sources to enhance rail system security.
To reduce the negative impacts from storm-related emergencies.		Assess the effects of climate change where weather and climate events can impact rail infrastructure and operation.

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Goal 6: Encourage livable communities and family-wage jobs through freight rail system improvements.

Objectives	Strategies	Actions
To sustain communities through reduced congestion, preserved and expanded infrastructure, economic growth, and optimized safety, security, and environmental impacts.	Continue to support local community development improvements that consider freight rail development options.	Support strategic partnerships along Washington's rail corridors that improve the quality of life of Washington's citizens.

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Appendix 3-A: Passenger Rail Service and Ridership in Washington State – A Brief

Passenger rail, once used as a means to address only mobility problems, is increasingly viewed and used, at both national and regional levels, as an integrated part of robust and resilient multimodal transportation systems. Such transportation systems will help policymakers achieve multiple policy ends, including economic viability, societal mobility, environmental sustainability, and public safety.

Amtrak Intercity Passenger Rail

Amtrak, partnered with the states of Washington and Oregon and the Province of British Columbia, provides intercity rail passenger service in the Pacific Northwest. Passenger rail services operate exclusively over rail lines owned by freight railroads. Sound Transit serves the Puget Sound urban area with commuter rail services. Along the I-5 corridor, passenger intercity passenger rail services share track with freight on the BNSF Railway (BNSF) mainline. The Union Pacific Railroad (UP) also has operating rights on this mainline from Vancouver, Washington (WA) to Tacoma. Between Tacoma and Everett, Sound Transit commuter rail operates on the BNSF tracks. Freight, intercity passenger, and commuter operations share common infrastructure to meet their customers' needs. Exhibit 3A-1 shows the ridership of the three intercity passenger rail services in 2008.

Amtrak *Cascades*

Since 1994 the Washington State Department of Transportation (WSDOT) has partnered with Amtrak, the state of Oregon, the Province of British Columbia, the railroads, and others to provide fast, reliable, and more frequent intercity passenger rail service along the 466-mile Pacific Northwest Rail Corridor (PNWRC). As one of 11 federally designated corridors, the PNWRC extends from Eugene, Oregon (OR) to Vancouver, British Columbia (B.C.). The service, known as Amtrak *Cascades*, provides travelers with a viable transportation alternative for their intercity trips.

**Exhibit 3A-1: Ridership of Intercity Passenger Rail Service –
Washington State 2008**

Rail Service	Description	Ridership
Amtrak Cascades	Arrive in Washington State from Oregon or Vancouver, B.C.	245,531
	Departure from Washington State to Oregon or Vancouver, B.C.	239,547
	Travel Within Boundaries of Washington State	189,916
	Travel Through Washington State Without Stopping in State	0
	Total Riders	674,994
Coast Starlight	Arrive in Washington State from Oregon or Vancouver, B.C.	51,565
	Departure from Washington State to Oregon or Vancouver, B.C.	62,707
	Travel Within Boundaries of Washington State	9,007
	Travel Through Washington State Without Stopping in State	0
	Total Riders	123,279
Empire Builder	Arrive in Washington State from Oregon or Vancouver, B.C.	68,791
	Departure from Washington State to Oregon or Vancouver, B.C.	70,177
	Travel Within Boundaries of Washington State	37,562
	Travel Through Washington State Without Stopping in State	46,464
	Total Riders	222,994
Total Intercity Passenger Rail Riders		1,021,267

Note: A state intercity passenger rail rider is defined as a passenger rail rider who arrives, departs, travels within and travels through the state using intercity passenger rail services, including *Amtrak Cascades*, *Coast Starlight*, and *Empire Builder*.

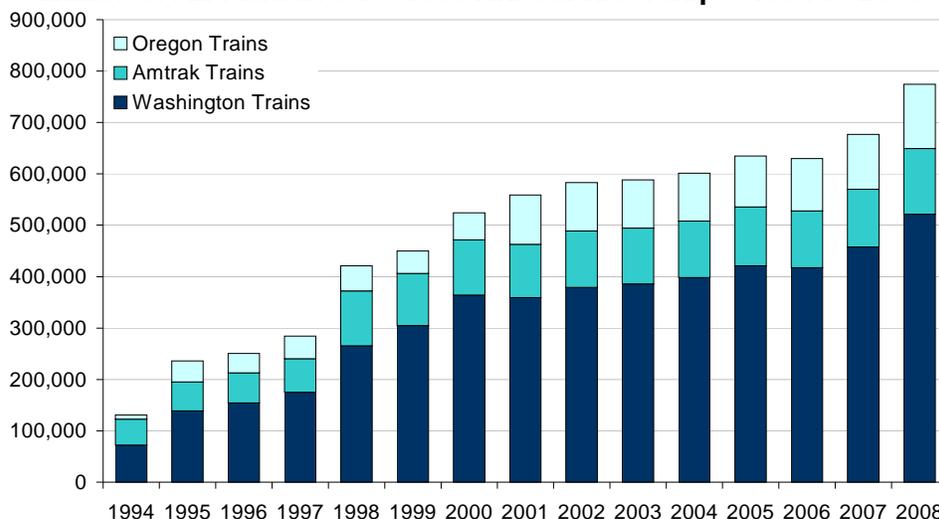
Source: WSDOT State Rail and Marine Office

Amtrak *Cascades* intercity passenger rail service in the state is operated over the BNSF mainline. Amtrak *Cascades* intercity passenger rail service in Oregon is operated over the UP mainline. The alignment roughly parallels Interstate 5 (I-5) and runs through western Washington and western Oregon. The Washington portion includes nine counties: Clark, Cowlitz, Lewis, Thurston, Pierce, King, Snohomish, Skagit, and Whatcom. In addition, a number of cities and towns are also traversed by the rail line, including Vancouver (WA), Kelso/Longview, Centralia, Olympia/Lacey, Tacoma, Tukwila, Seattle, Edmonds, Stanwood, Everett, Mt. Vernon, and Bellingham. In Oregon, the alignment travels through Portland, Oregon City, Salem, Albany, and Eugene. The corridor is diversely populated and contains a mixture of farmlands, small communities, natural habitats, and large metropolitan areas. Corridor development is a cooperative effort between the states of Oregon and Washington, BNSF, UP, Amtrak, Sound Transit, the Province of British Columbia, ports, local communities, passengers, and the general public.

Ridership for Amtrak *Cascades* on the PNWRC has been increasing. The following paragraphs highlight the changes in ridership between 1994 and 2008.

Amtrak *Cascades* ridership has risen steadily on the PNWRC from Eugene, OR to Vancouver, B.C., from less than 200,000 annual passengers in 1994 to 774,536 passengers in 2008. A complete history of the Amtrak *Cascades* annual ridership is shown in Exhibit 3A-2.

Exhibit 3A-2: Amtrak Cascades Annual Ridership – 1994 to 2008



Source: WSDOT State Rail and Marine Office

Since 1994 when Washington State began financially supporting Amtrak service, consumers have responded to the increased frequency of daily train service. In every case when or where the supply of passenger train capacity increased higher ridership has quickly followed. Ridership increases are most significant between Seattle and Portland, with four daily Amtrak *Cascades* regional round trips.

Commuter Rail

Sound Transit provides *Sounder* commuter rail service in the Puget Sound area. *Sounder* commuter rail is a regional rail service operated by BNSF on behalf of Sound Transit. Service operates Monday through Friday during peak hours from Seattle, north to Everett and south to Tacoma. As of 2008, schedules serve the traditional peak commutes, with most trains running inbound to Seattle in the morning and outbound in the afternoon. Two daily round trips run the “reverse commute” to and from Tacoma. Additional *Sounder* trains operate on some Saturdays and Sundays for travel to and from Seahawks games at Qwest Field and Mariners games at Safeco Field. Both stadiums are a short walk from King Street Station.

Ridership has steadily increased year after year with the addition of new service. In 2008 *Sounder's* ridership was 16.13 million, up 17 percent over 2007. One of the key benefits to *Sounder* travel has been the on-time performance of the trains. Performance has reached the level of 99.85 percent in 2008.



Appendix 3-B: Railroad History, Profiles, Service Corridors, and Safety Regulatory History

This appendix contains a brief national and state freight rail history, Washington State (state) freight railroad profiles and service corridors, and a summary of safety regulations and history.

National Freight Rail History¹

Construction of the nation's rail network started in 1828. The system expanded rapidly in the late 1800s and early 1900s. System mileage peaked in the 1920s at approximately 380,000 miles of track. Since then the rail network has been downsized and modernized to a core network whose route system is descended directly from its 19th century design.

The Class I railroad system today has 160,734 miles of track, less than half the number of miles it had in the 1920s.² The reduced size of the nation's freight rail network is the result of three factors: competition with the trucking industry, deregulation, and railroad efficiency.

Private businesses face stiff rate competition from trucks and shareholder pressure to generate profits. As a result, the nation's major railroads have divested in lines and services with insufficient traffic density to adequately cover their operating and maintenance costs. To improve productivity and profitability, they have invested in double-stack cars, larger hopper and tank cars, and higher boxcars and auto-rack cars, which in turn require investment in high-clearance tunnels, higher-weight-capacity track, and stronger bridges. The high cost of these improvements has limited railroads to upgrading only the highest volume and most profitable lines. Other lines have been downgraded or abandoned.

Abandonment has also occurred as a result of mergers and consolidations among railroads, which have led to duplicative or redundant lines. The merger trend began in the mid-19th century as railroads struggled to build networks and access profitable routes and markets.

Railroad abandonments began in the 1920s and continued steadily up to 1980, when many of the railroads were spiraling into bankruptcy. The Staggers Act of 1980 deregulated the railroad industry, helping railroads continue the process of merging, restructuring, and reorganizing. Since

¹ AASHTO, Transportation – Invest in America: Freight Bottom Line Report (2001), pp. 32-33.

² Association of American Railroads, www.aar.org/.

railroad deregulation in 1980, the pace of abandonments has slowed as more lines have been sold to create short-line and regional railroads. The result of these changes is a modern, efficient “core” network geared towards profitably serving today’s freight-rail markets. But this efficiency has come at a cost. Railroad service has been withdrawn from many areas, forcing businesses to relocate or shift to truck service.

Washington State Rail History

In 1851 the first “railroad” in Washington Territory appeared along the north bank of the Columbia River near present-day Stevenson and used mule power to pull flatcars along six-inch square wooden rails topped with strap iron. This line covered a distance of roughly two miles and was later expanded to six miles.

Two years later Congress authorized the United States (U.S.) Army to conduct five transcontinental railway surveys to find a feasible route to the Pacific Ocean. Isaac I. Stevens led the northern survey, which headed west from St. Paul, Minnesota, looking for a suitable crossing of the Cascade Mountains. Isaac Stevens later became the first Governor of Washington State.

Abraham Lincoln and the Northern Pacific Railroad

In 1864 Congress and President Abraham Lincoln used the findings of the Army’s northernmost survey to charter the Northern Pacific Railroad. The route loosely followed that of Lewis and Clark’s 1804-1806 Corps of Discovery expedition to the Pacific Northwest. The Northern Pacific was charged with “constructing a railroad and telegraph line from Lake Superior to Puget Sound,” in order to “secure the safe and speedy transportation of the mail, troops, munitions of war, and public stores.” The Northern Pacific Railroad used the sale of huge federal land grants to finance its construction.

In 1870 the Northern Pacific began construction on its first set of tracks in Washington Territory, near present-day Kalama on the Columbia River. A fierce competition to determine where the tracks would connect to the Puget Sound ensued, and the communities of Olympia, Steilacoom, Seattle, and Whatcom, on Bellingham Bay, were all considered by the railroad. In July 1873, the railroad’s Board of Directors selected Tacoma as its western terminus.

In 1874 regular train service began between Kalama and Tacoma. Despite major financial setbacks, the vision for a northern transcontinental railroad was kept alive and small portage railroads³ along the southern shore of the

³ Car ferries were used to cross the river from one track to another.

Columbia River were linked together to create a continuous set of tracks. In September 1883, Portland, Spokane Falls, and the cities of the upper Midwest were linked by rail for the first time when the final spike on the Northern Pacific mainline was driven near Gold Creek in Montana.

In 1873 residents of Seattle—upset with the Northern Pacific Railroad’s selection of Tacoma as its western terminus—announced their intention to build a railroad to Walla Walla. Though Seattle’s effort only made it to the western foothills of the Cascade Mountains, the declaration caused the owners of the Northern Pacific to take another look at a direct rail line between the eastern segment of Washington Territory and Puget Sound. When Congress indicated that the railroad would have to construct a direct route from the mouth of the Snake River to Tacoma—or risk losing large segments of its original land grant—the Northern Pacific began construction west from present-day Pasco through the Yakima Valley. At the same time, track work began near Tacoma in an easterly direction. The two rail lines were to meet at Stampede Pass.

Stampede Tunnel and Statehood

In May 1888, the 1.8-mile-long Stampede Pass tunnel was completed. The completion of the Northern Pacific’s rail line between Pasco and Tacoma supported Washington’s application for statehood.

In November 1889, Washington became the nation’s 42nd state. Railroads now connected growing communities like Tacoma, Seattle, Ellensburg, North Yakima, Pasco, and Spokane with the rest of the nation. The new rail crossing of the Cascade Mountains also reduced the total freight costs for many American businesses trading in the Far East, which led to more port activity, business development, and population growth in Puget Sound.

The Great Northern Railway Comes to Washington

In the early 1890s, Nelson Bennett used some of the money he had earned overseeing the construction of the Stampede Tunnel to form the Fairhaven and Southern Railway on Bellingham Bay. The new rail line stretched north into British Columbia and south into the Skagit Valley. It was hoped that this rail line would lure the westward reaching Great Northern Railway to the Bellingham area.

At the same time, the Seattle, Lakeshore, and Eastern Railway began to build north from Seattle toward the Canadian border. The owners intentionally constructed the line several miles inland from Puget Sound (the part of the route is now the Burke Gilman Trail in Seattle) to prevent other speculators from building new port facilities along Puget Sound that would compete with Seattle. The line extended across the Skagit River to

Sedro-Woolley and on to Sumas City on the Canadian border. In August 1891, the line connected with the Canadian Pacific Railway, Canada's first transcontinental railroad.

The Great Northern Railway reached Spokane in 1892, continued west through Wenatchee, and completed a series of switchbacks across the Cascades Mountains near Stevens Pass. The railroad purchased the Fairhaven and Southern Railway, built tracks to Everett, and reached Seattle in 1893. In 1900, the Great Northern Railway completed their first Cascades Tunnel at Stevens Pass, which cut the travel time between Seattle and the rest of the nation by several hours.

At the turn of the twentieth century, the people of the state had rail access to commercial centers across North America. Passengers and freight came to the new state on the Canadian Pacific, the Northern Pacific, the Great Northern, and the Union Pacific railroads. The state's population continued to grow as immigrants from around the world came to work the land, the forests, the waters, and in thousands of small businesses across the state.

More Railroads and New Stations

In 1908 the Spokane, Portland, and Seattle Railway (SP&S) completed a new rail line along the north bank of the Columbia River, connecting Vancouver, Pasco, and Spokane. Later that same year, the railroad finished construction of a rail bridge across the Columbia River just west of the business district of Vancouver. The new steel bridge created a continuous rail link between Portland, Tacoma, Seattle, and British Columbia for the first time.

In 1909 the last of the major transcontinental railroads reached Seattle and Tacoma. The Chicago, Milwaukee, St. Paul, and Pacific (Milwaukee Road) completed track work and began operating trains across Snoqualmie Pass. The first Milwaukee Road train arrived in Seattle on June 14, 1909, and terminated at the temporary station at Washington Street and Railroad Avenue.⁴ The arrival of the Milwaukee Road further intensified the railroads' competition for freight and passengers. The Milwaukee Road operated transcontinental passenger trains to both Seattle and Tacoma and operated transcontinental freight service into Tacoma, where their main freight yard was located.

The Milwaukee Road's line across Snoqualmie Pass and all lines in the state were embargoed⁵ in 1979, and the last Milwaukee Road freight train

⁴ Milwaukee Road Historical Association *The Milwaukee Railroader* – Volume 39, Number 3/Third Quarter 2009 – White River Productions.

⁵ An embargo is a complete ban on economic exchange.

left Tacoma on March 15, 1980. The rail line across Snoqualmie Pass was sold to the Burlington Northern Railroad, but was ultimately abandoned and the trackage was removed by the end of 1987. This line is now part of the John Wayne Trail owned by Washington State Parks. Several portions of the old Milwaukee trackage in Moses Lake and in eastern/northeastern Washington have been picked up and operated by short-line or regional railroads. However, most of the old Milwaukee Road rail line across the state has been abandoned.

The Decline of Passenger Rail Service in Washington

In the early 1920s, automobile and truck transportation began to become very popular. The Washington Department of Highways and local highway districts often followed travel corridors developed by the railroads as they paved new roads between major cities. The completion of the first Pacific Highway between Seattle and Portland in 1924 lured away more passengers and freight traffic from the rails. For many people, this shift was inspired by the fact that automobile and truck transportation provided a greater degree of flexibility and freedom than was available with rail transportation. Travelers and shippers were no longer dependent upon the schedules and rates offered by the railroads.

The completion of the original Pacific Highway in western Washington caused the Great Northern, the Northern Pacific, and the Union Pacific railroads to pool their passenger services between Seattle and Portland and reduce the number of trains from 22 to 12 trains per day.

The federal government, which had required the railroads to continue to provide passenger service to communities across the nation, finally agreed to relieve the railroads from this obligation. In exchange, the railroads gave most of their old passenger equipment to the newly formed National Railroad Passenger Corporation, more commonly known as Amtrak (for *American travel by track*). Operating agreements between the private railroads and Amtrak were finalized, and national service began on May 1, 1971.

For more information about passenger rail history, see the *Amtrak Cascades Mid-Range Plan*, Appendix 3A.⁶

The following railroad profiles contain freight railroad history, descriptions, and maps for each railroad in Washington State.

⁶ 2008 *Amtrak Cascades Mid-Range Plan* Appendix 3A, www.wsdot.wa.gov/Freight/publications/PassengerRailReports.htm.

Class I Railroad Profiles

BNSF Railway

On March 3, 1970, the Great Northern; Northern Pacific; the Spokane, Portland, and Seattle; and the Chicago, Burlington, & Quincy Railroads merged and become the Burlington Northern Railroad.

In 1980 the Staggers Rail Act deregulated rail transportation in the U.S. causing the largest railroads to sell off branch lines to smaller railroad companies. In 1983 the Burlington Northern Railroad discontinued rail service across the Stampede Pass. In 1995 the Burlington Northern Railroad merged with the Santa Fe Railroad and became the Burlington Northern and Santa Fe Railway, which later became the BNSF Railway Company (BNSF). And in 1996 the BNSF repaired and reopened the Stampede Pass line.

The BNSF is one of the four largest railroads operating in the U.S. (the largest U.S. railroad by 2009 revenue). BNSF, as it stands today, is the product of some 390 different railroad lines that merged or were acquired over more than 150 years.

Service is provided over seven major corridors, and nine low-density corridors. The major corridors provide the primary conduits to the North American rail network, while the low-density corridors offer collection/distribution services. The major corridors are:

- Seattle-Spokane
- Seattle-Portland, OR
- Portland, OR-Pasco
- Auburn-Pasco
- Pasco-Spokane
- Spokane-Sandpoint, ID
- Everett-Vancouver, B.C.

BNSF operates over 1,640 miles in Washington State, which represents almost ten percent of their total system route miles operated.

An average of 220,000 rail cars operates on the BNSF network daily. Primary commodities include coal, agricultural products, intermodal (containers/trailers), forest products, chemicals, metals, and minerals. BNSF is one of the largest haulers of agricultural products. Chemicals hauled by the BNSF include propane, lube oil, petroleum, and asphalt.

The UP considered building a parallel north-south mainline from Portland to Tacoma/Seattle in the early 1900s. However the UP ended up negotiating trackage rights over the Northern Pacific Railway mainline between Portland, OR and Tacoma, Washington (WA) through its O-WR&N subsidiary. The Union Pacific's O-WR&N subsidiary constructed a joint line with the Chicago, Milwaukee, St. Paul, and Pacific Railroad between Tacoma Junction and Black River Junction, near Seattle, providing access to the Seattle area. Further access to downtown Seattle was provided via trackage rights on the Northern Pacific and the Pacific Coast Railway. The UP/O-WR&N and the Milwaukee Road passenger trains called at Union Station in Seattle, which opened in 1911.

The Spokane International Railroad Company built a railroad line from Spokane up to the Canadian border at Eastport, ID and commenced operations on November 1, 1906. The Spokane International Railroad entered bankruptcy in 1933 and was re-organized as the Spokane International Railroad (SI). The UP acquired full control of the SI in 1958, and presently operates the Spokane to Eastport, ID line as part of the UP system. The UP operates a number of run-through international trains with the Canadian Pacific Railway via the connection at Eastport, ID.

The UP and the Southern Pacific Railroads (SP) merged on September 11, 1996. The SP only operated as far north as Portland, OR and never came into Washington State. The merger allowed the UP to offer some longer distance one-railroad routings, such as Seattle to Los Angeles and Seattle to San Francisco Bay area. The UP/SP merger also re-configured some of their adjacent terminal operations in Portland. This merger then resulted in the largest Class I railroad in the U.S., as measured by total route miles.

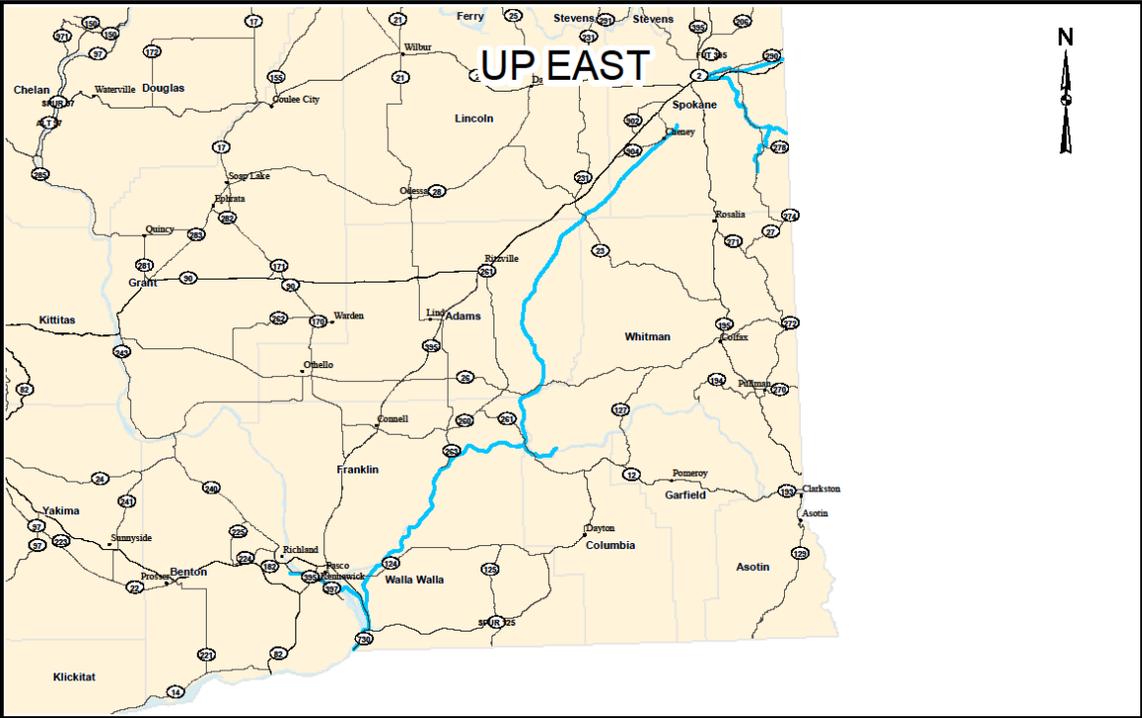
The railroad is still the largest railroad in North America by trackage, serving 23 states, operating over 32,000 miles in the western U.S., linking every major West Coast and Gulf Coast port, and providing east-west service through four major gateways (Chicago, St. Louis, Memphis, and New Orleans) with the eastern railroads. UP also operates key north-south corridors with several connections at the Mexican and Canadian borders.⁹

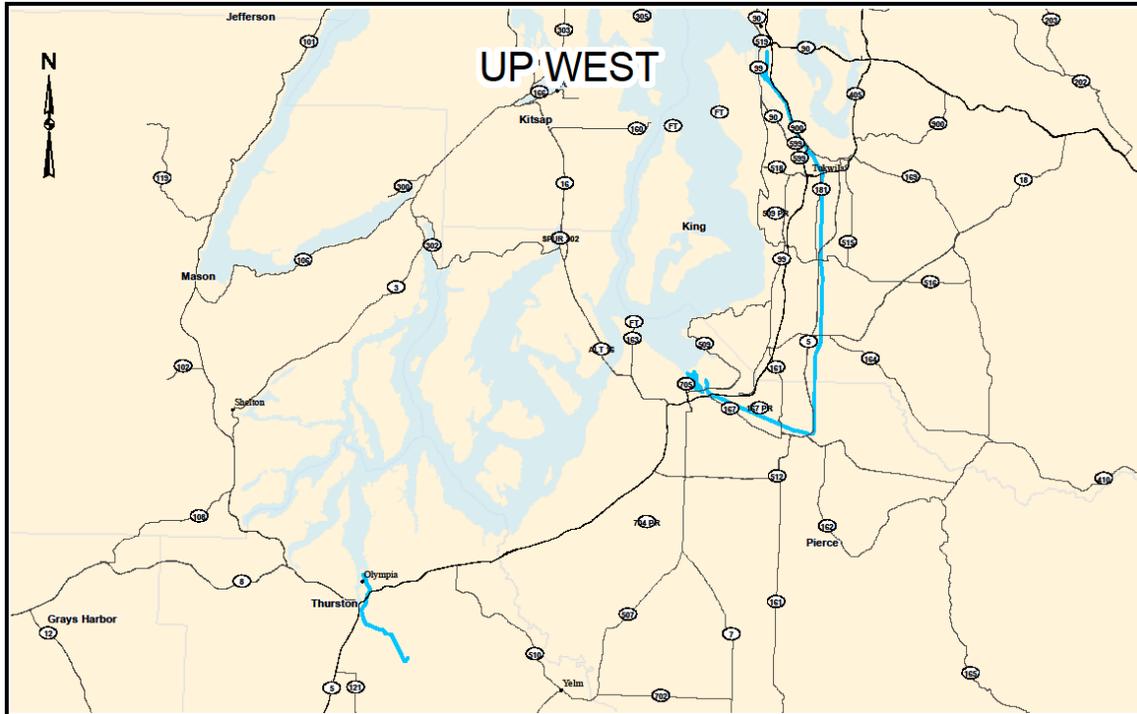
The UP operates on 678 route miles in the state with operating rights on BNSF tracks between Portland and Tacoma, and between Tukwila and the Port of Seattle. It operates on its own right-of-way between Tacoma and Tukwila. In eastern Washington, UP operates on its own tracks between Hinkle, OR and Spokane, and also to the "funnel" between Spokane and Sandpoint, ID.

⁹ Introductory material adapted from www.up.com/.

The UP transports many commodities including chemicals, coal, food and food products, forest products, grain and grain products, intermodal, metals and minerals, and automobiles and parts. The UP is also one of the largest intermodal carriers (containers and trailers).

Revenue in 2008 totaled \$18 billion per UP's 2008 Report to the UTC.





Class II and Class III Railroad Profiles

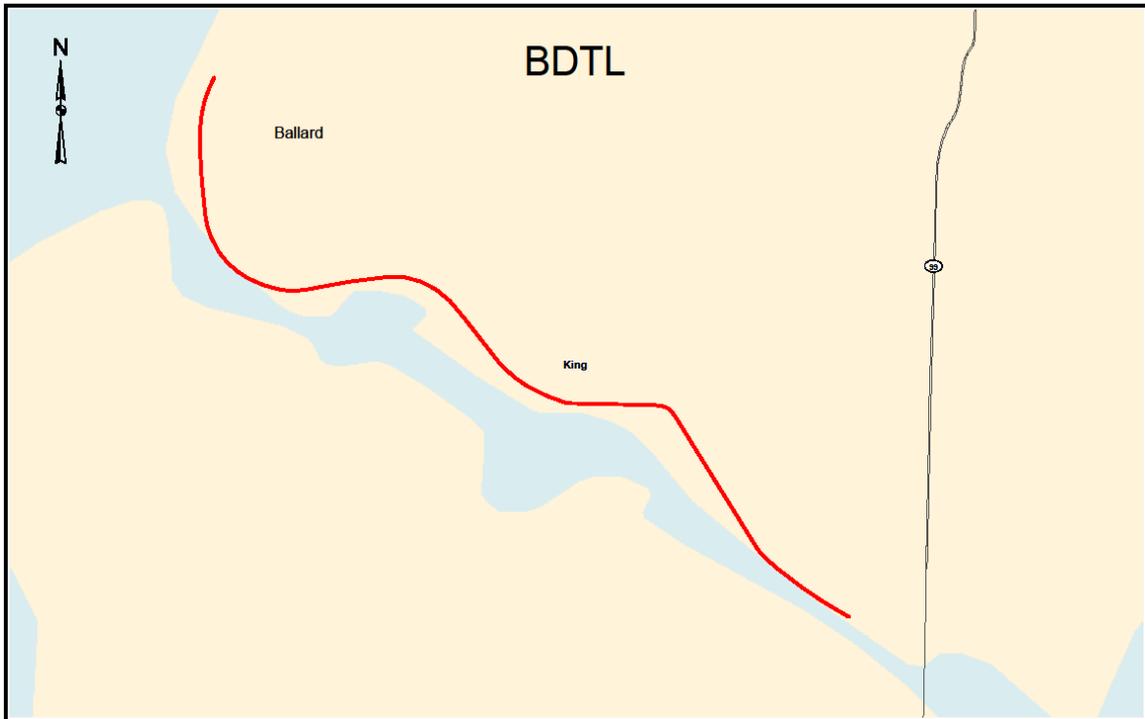
Ballard Terminal Railroad

The Ballard Terminal Railroad (BDTL¹⁰), a Class III railroad in Seattle, was formed in 1997 to operate trains on three miles of track on the north side of Salmon Bay. The BDTL runs from NW 40th Street and 6th Avenue NW, just south of its Bright Street Yard and on the edge of Fremont Avenue, northwest toward Ballard proper. There, it passes the Hiram M. Chittenden Locks and runs along Seaview Avenue NW to its Shilshole Yard, where it joins the BNSF mainline just north of NW 68th Street. Most of the railroad was originally part of the Great Northern Railway's mainline, which moved to the west when the Lake Washington Ship Canal was built.¹¹

The BDTL reported total interstate operating revenue of \$6,148 and \$70,012 for total gross intrastate operating revenue in their 2008 Annual Report to the Utilities and Transportation Commission (UTC).

¹⁰ BDTL is the reporting mark for Ballard Terminal Railroad. A reporting mark is a two-to-four-letter alphabetic code used to identify owners or lessees of rolling stock and other equipment used on the North American railroad network. The marks are stenciled on each piece of equipment, along with a one-to-six-digit number, which together uniquely identify every such rail car. This allows the cars to be tracked by the railroad they are traveling over, which shares the information with other railroads and customers.

¹¹ http://en.wikipedia.org/wiki/Ballard_Terminal_Railroad/.

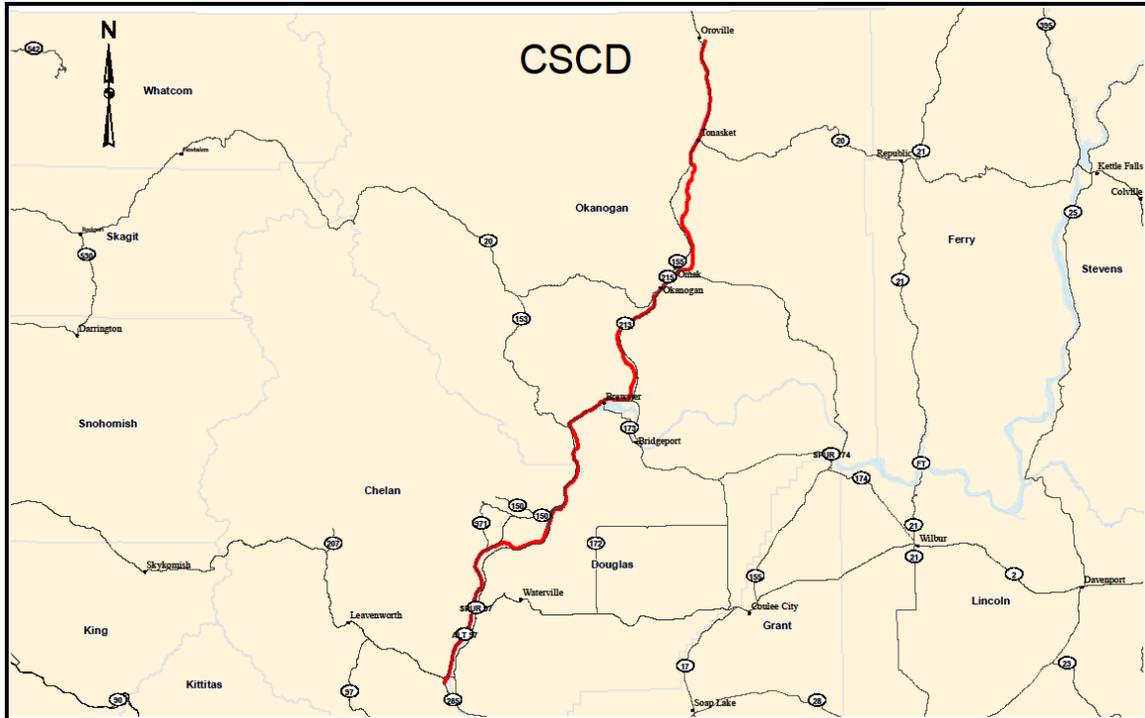


Cascade and Columbia River Railroad

The Cascade and Columbia River Railroad (CSCD) is a Class III railroad that interchanges with BNSF in Wenatchee and runs north to Oroville. This line was originally built in 1914 by the Great Northern Railroad to link the mainline at Wenatchee to the Washington & Great Northern/Vancouver, Victoria & Eastern line at Oroville. The major commodities carried on the CSCD are limestone, pulpwood, and lumber products. The CSCD offers transload locations on its line to assist customers in getting their lumber to specific customers that may not be rail served or need additional services provided by these facilities. The CSCD operates 148 miles of track and moves over 5,200 cars per year to or from this area in the state. The CSCD has trackage rights over six miles of BNSF's Oroville Spur to Wenatchee for the purpose of performing interchange at Wenatchee Yard.¹²

CSCD reported total gross intrastate operating revenue of \$1,614,149 in their 2008 Annual Report to the UTC.

¹² <http://www.railamerica.com/RailServices/CSCD.aspx/>.



Central Washington Railroad

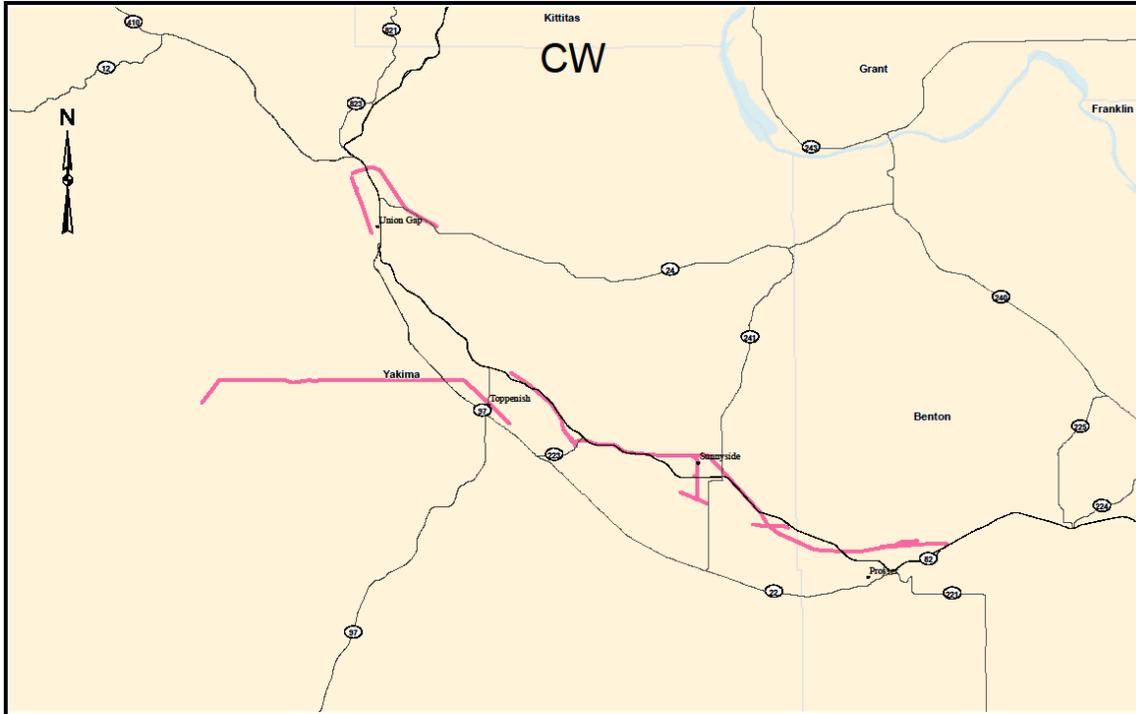
The Central Washington Railroad (CWA), a wholly-owned subsidiary of the Columbia Basin Railroad (CBRW), serves with a series of former BNSF and UP branch lines in central Washington. The CWA, a Class III railroad, consists of approximately 60 miles of track located in the Yakima Valley. The CWA serves the communities of Yakima, Union Gap, Moxee, Granger, Sunnyside, Grandview, and Prosser. These include:

- Former North Yakima & Valley Railway (NY&V, acquired by the Northern Pacific in 1914) from Yakima to Moxee City, 8.6 miles acquired from BNSF in 2005.
- Former NY&V from Yakima to Fruitvale, three miles acquired from BNSF in 2005.
- Former NP from Gibbon to Granger, 30 miles acquired from BNSF in 2005.
- Numerous short stretches of former NCRRT trackage between Grandview and Zillah, 15.6 total miles of trackage rights assigned by BNSF over UP-owned lines in 2005.

Commodities hauled on this line include feed, propane, paper products, plastic pellets, cheese, juice concentrate, lumber, apples, and other agricultural goods.¹³

¹³ http://www.temple-industries.com/companies/central_washington_railroad.php/.

The CWA reported total interstate operating revenue of \$1,436,210 and total gross intrastate operating revenue of \$374,225 in their 2008 Annual Report to the UTC.



Columbia and Cowlitz Railway

The Columbia and Cowlitz Railway (CLC), a Class III railroad, is a wholly-owned subsidiary of Weyerhaeuser Company, and is headquartered in Longview, WA. The railroad serves an 8.5-mile public route from the Weyerhaeuser Company mill in Longview to the junction just outside the city limits of Kelso.¹⁴ It also connects to a private route to serve Weyerhaeuser properties. The line was completed in 1928 and hauls forest products, steel, and chemicals.

The CLC reported total gross intrastate operating revenue of \$2,654,693 in their 2008 Annual Report to the UTC.

¹⁴ http://en.wikipedia.org/wiki/Columbia_and_Cowlitz_Railway/.



Columbia Basin Railroad

The Columbia Basin Railroad (CBRW) is a Class III railroad located in the Columbia Basin region of the state. Interchanging with the BNSF in Connell, the line runs north crossing I-90 before reaching Moses Lake. Along the route, the CBRW also serves Warden, Bruce, Schrag, and Othello. In total, the line consists of 86 track miles: 73 miles are owned by the CBRW and the other 13 track miles are on a long-term lease from the BNSF. Presently, the main commodities hauled on this line are agricultural goods, in-bound fertilizer, chemicals, and processed potatoes and vegetables.

The CBRW reported total interstate operating revenue of \$4,240,109 and total gross intrastate operating revenue of \$787,720 in their 2008 Annual Report to the UTC.

The Portland Vancouver Junction Railroad (PVJR) is a newly formed subsidiary of CBRW. It is owned by Clark County, serving the Vancouver (WA) area since 2004. The Chelatchie Prairie Railroad (BYCX), a tourist railroad, operates passenger excursions between Lucia and Yacolt on weekends and holidays.

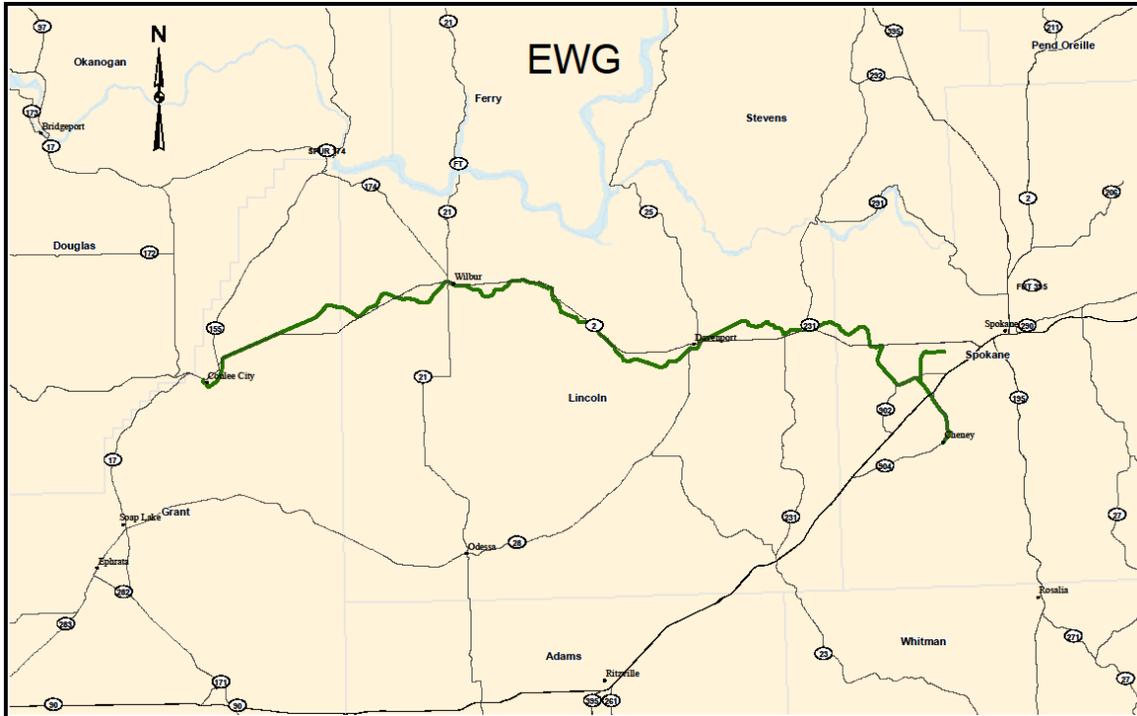


Eastern Washington Gateway Railroad

The Eastern Washington Gateway Railroad (EWG) operates a 108-mile Class III railroad that extends from Cheney to Coulee City. It is one of three state-owned branch lines of the Palouse River & Coulee City Railroad System. The primary customer is a grain cooperative, which ships barley and wheat from facilities located on the western portion of the branch. Other grain shippers transport grain by rail to a lesser extent. Most of the grain cars travel all of the way to the coast for shipment overseas. Other cars are taken in a 60-car shuttle operation to a loading operation in Ritzville, where the grain is placed in a 110-car shuttle train to the coast.

In January 2009, a new connecting track to the existing Geiger Spur in Airway Heights was opened. Formerly operated by Western Rail Switching (WRS) and owned by Spokane County, Geiger Spur customers include three metal fabricators and a locomotive parts reseller. Studies suggest that new industrial development in the greater Spokane area, including intermodal transload, will likely occur in the area served by the Geiger Spur.

The EWG reported total interstate operating revenue of \$1,803,601 in their 2008 Annual Report to the UTC. WRS, in their last year of operation of the Geiger Spur, reported total interstate operating revenue of \$58,500 in their 2008 report to the UTC.



Great Northwest Railroad

The Great Northwest Railroad (GRNW), a Class III railroad, is located in the Idaho Panhandle near the state line and consists of approximately 77 mainline miles. From Lewiston, ID, the railroad heads west to Riparia, WA. The GRNW interchanges with both the BNSF and UP at Ayer, WA, approximately 85 miles west of Lewiston.

The Camas Prairie Railroad Company was formed in 1909, jointly owned and operated by the former Northern Pacific Railway, now BNSF, and the former Oregon-Washington Railroad and Navigation Company, now UP. The GRNW is a wholly-owned subsidiary of Watco Companies, which purchased the line in 2004, renaming it the GRNW.¹⁵

Primary commodities are forest products consisting of lumber, bark, paper and tissue, agricultural products, industrial and farm chemicals, scrap iron, and frozen vegetables.

The GRNW reported total interstate operating revenue of \$3,962,836 in their 2008 Annual Report to the UTC and reported total gross intrastate operating revenue of \$113,584.

¹⁵ <http://www.watcocompanies.com/railroads/gnr/grnw.htm>

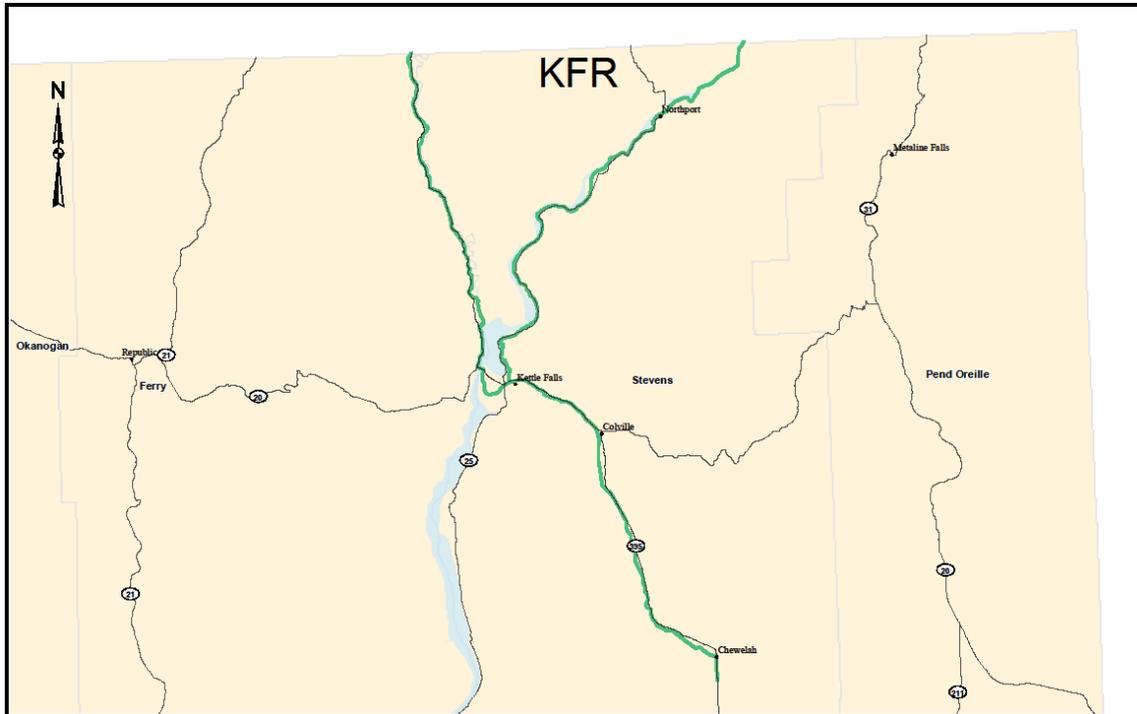


Kettle Falls International Railway

The Kettle Falls International Railway, LLC (KFR) owns and operates over 160 miles of former BNSF trackage in northeastern Washington State and southeastern British Columbia (B.C.). KFR operates from the BNSF interchange at Chewelah, WA to Columbia Gardens, B.C. A second line operates from Kettle Falls to Grand Forks, B.C. KFR has a diverse traffic base, including lumber, plywood, wood products, minerals, metals, fertilizer, industrial chemicals, and abrasives.¹⁶

KFR reported total interstate operating revenue of \$4,319,638 and total gross intrastate operating revenue of \$460,891 in their 2008 Annual Report to the UTC.

¹⁶ http://www.omnitrax.com/rail_kfr.aspx



Longview Switching Company

The Longview Switching Company (LSC), a Class III railroad, is a jointly owned subsidiary of BNSF and UP that performs terminal switching duties at the Port of Longview. LSC was once known as the Longview, Portland & Great Northern Railway (LP&N). The LP&N was owned by International Paper. Like Weyerhaeuser, International Paper owned its own railroads. The original LP&N went from Longview north to Ryderwood, but was later cut back to operate between Longview and a connection to the Northern Pacific (now BNSF) at Longview Junction. As International Paper built more mills in other parts of the northwest, they built more railroads as well, and all these railroads were part of the LP&N. When International Paper's Longview Mill closed, the railroad, which still served other customers, was sold to become Longview Switching. Longview Switching is a private company categorized under Railroad Switching and located in Longview. It was incorporated in 1971.¹⁷

The BNSF and UP mainlines run parallel to I-5, approximately five miles from the Port. The Longview Switching Company switches trains from the railroad mainlines into the Port. From there, Port locomotives move trains and rail cars to the marine terminals and industrial locations. The LSC operates on 17 miles of track owned by BNSF and UP.¹⁸

¹⁷ <http://people.msoe.edu/~westr/wtcx.htm>

¹⁸ <http://www.manta.com/company/mtvr3mg>

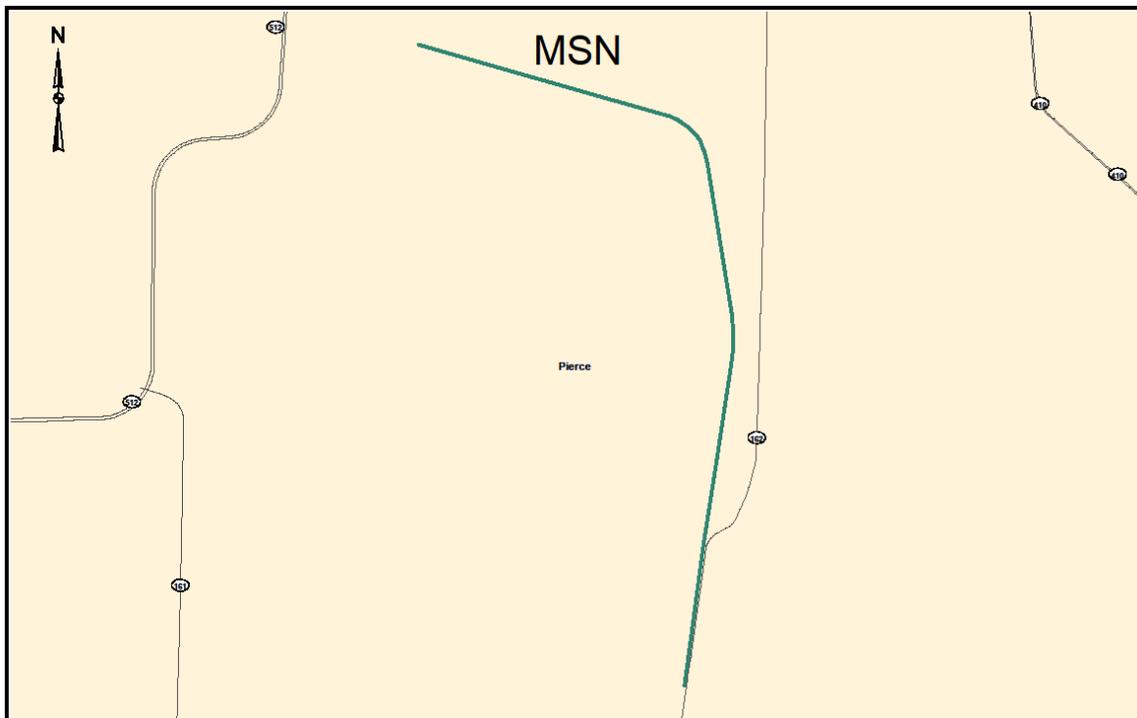
LSC reported estimated annual revenue of \$1,600,000 in 2008.

Meeker Southern Railroad

The Meeker Southern (MSN) is a Class III railroad that connects Meeker Junction (Puyallup, WA), with an industrial park in McMillan, WA. The MSN is a wholly-owned subsidiary of the BDTL. The line is approximately 5 miles long, which is owned by MSN.

The commodities hauled on this line are fiberboard, building materials, and steel products.

MSN reported no total gross intrastate operating revenue, but did report \$181,796 in interstate operating revenue.



Montana Rail Link

Montana Rail Link (MRL) is a Class II regional railroad with more than 900 miles of track serving 100 stations in Montana, Idaho, and Washington. MRL connects with the BNSF at Spokane, and at Laurel and Helena, Montana.

MRL hauls a variety of commodities including agriculture, chemicals, fertilizers, hazardous materials, lumber, coal, scrap iron, and paper.

MRL operates on 16 miles of track owned by BNSF from the Idaho border into Spokane.

MRL reported total intrastate revenue of \$4,434,250 in 2008.

Mount Vernon Terminal Railway

The Mount Vernon Terminal Railway (MVT), a Class III railroad serving Mount Vernon, was formed in 1933 by acquisition of track from the Pacific Northwest Traction Company. The railroad expanded in 1939, when it acquired trackage abandoned by the Puget Sound & Cascade Railway. The railroad provides as-needed service and interchanges with BNSF at Mount Vernon. The railroad consists of a 3-track wide yard. It is used for storage and transloading, no on-line customers.

MVT reported total interstate operating revenue of \$61,174 and no intrastate operating revenue.

Palouse River & Coulee City Railroad System

The Palouse River & Coulee City Railroad System is owned by the state. It consists of three Class III railroads operating on 279 miles of mainline track and 18 miles of former mainline track that is now used for rail car storage. The system is divided into the following branches:

CW Branch

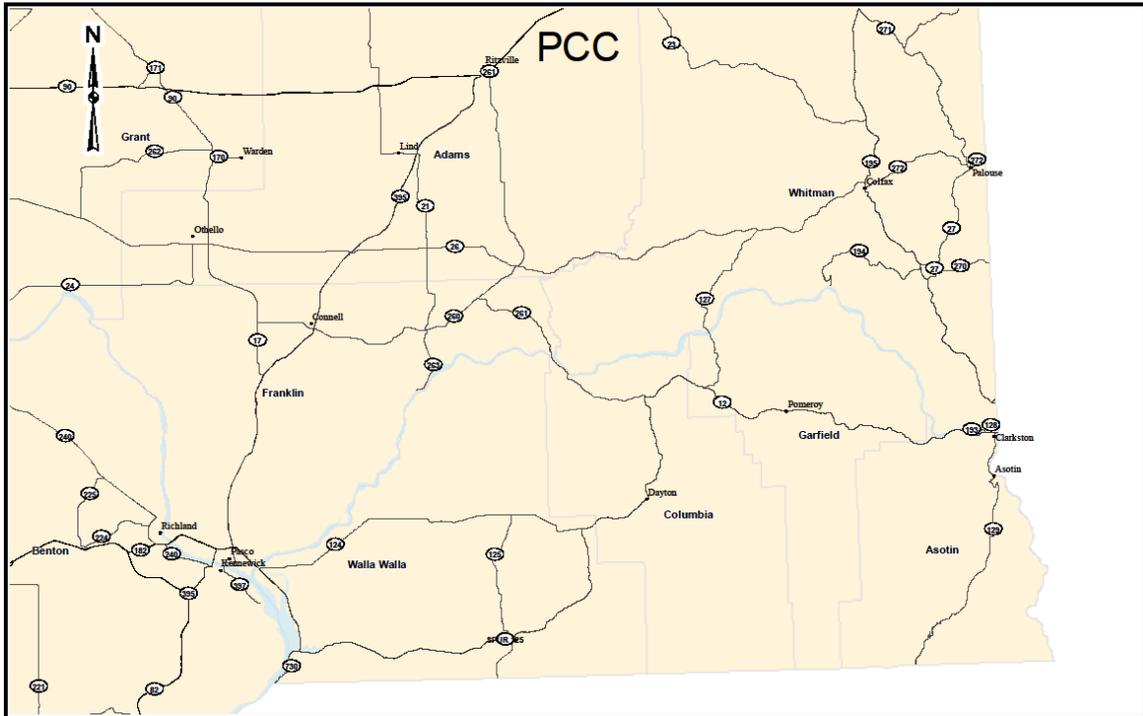
The Eastern Washington Gateway Railroad (EWG) operates this 108-mile-long branch that extends from Cheney to Coulee City. The primary customer is a grain cooperative, which ships wheat from facilities located on the western portion of the branch. Other grain shippers transport grain by rail to a lesser extent. Some of the grain cars travel all the way to the coast for shipment overseas. Other cars are taken in a 52-car shuttle operation to a mega-loader operation in Ritzville where the grain is placed in a 110-car shuttle train to the coast.

PV Hooper Branch

The PCC Railroad Company (PCC), a subsidiary of Watco Companies operates this branch, which contains a total of 84 miles of mainline track. Fertilizer products are brought into a facility located in Mockonema. However, grain is the primary commodity. Grain is taken to a transload facility in Wallula where it is loaded onto barges for transport to the coast. The Hooper sub-branch extends from Colfax to Hooper. The PV Hooper sub-branch extends from Thornton to Winona where it connects to the Hooper sub-branch.

P & L Branch

The Washington and Idaho Railway, Inc. (WIR) operates this branch, which contains a total of 87 miles of mainline operating track. Grain is also the primary commodity shipped on the branch. Fertilizer and lumber are also shipped. The branch extends from Marshall through Pullman to Moscow, ID. A small spur extends from Palouse to the Idaho border directly to the east where it continues to Princeton, ID under private ownership. The operator also stores cars on an 18-mile section that extends from Pullman to a river crossing near Colfax where a bridge burned that severed the section from the PV Hooper Branch.

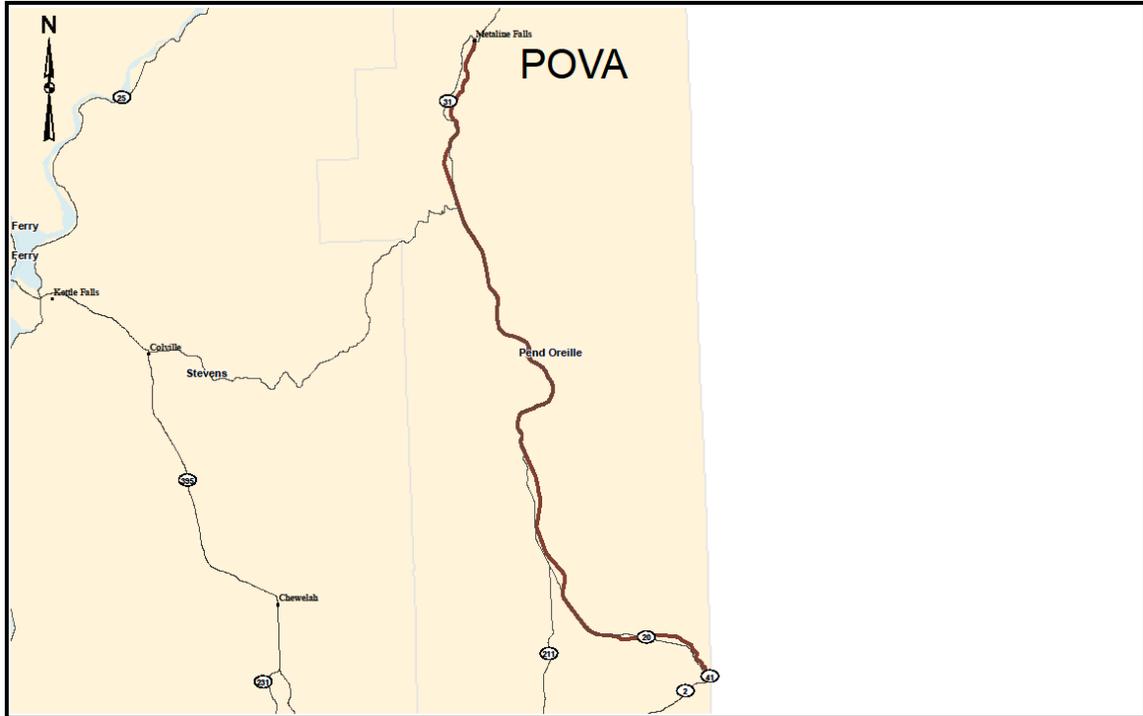


Pend Oreille Valley Railroad

The Port of Pend Oreille owns and operates the Pend Oreille Valley Railroad (POVA), a Class III railroad. Located in northeastern Washington, POVA-owned tracks run from Metaline Falls to Newport. POVA leases trackage from BNSF from Newport to Dover, ID.¹⁹ Most of the POVA customers are located near the south end of the line, and the north end hosts occasional tourist trains between Ione and Metaline Falls.

POVA reported a total interstate operating revenue of \$1,899,339 and total gross intrastate operating revenue of \$506,001.

¹⁹ <http://www.povarr.com/>



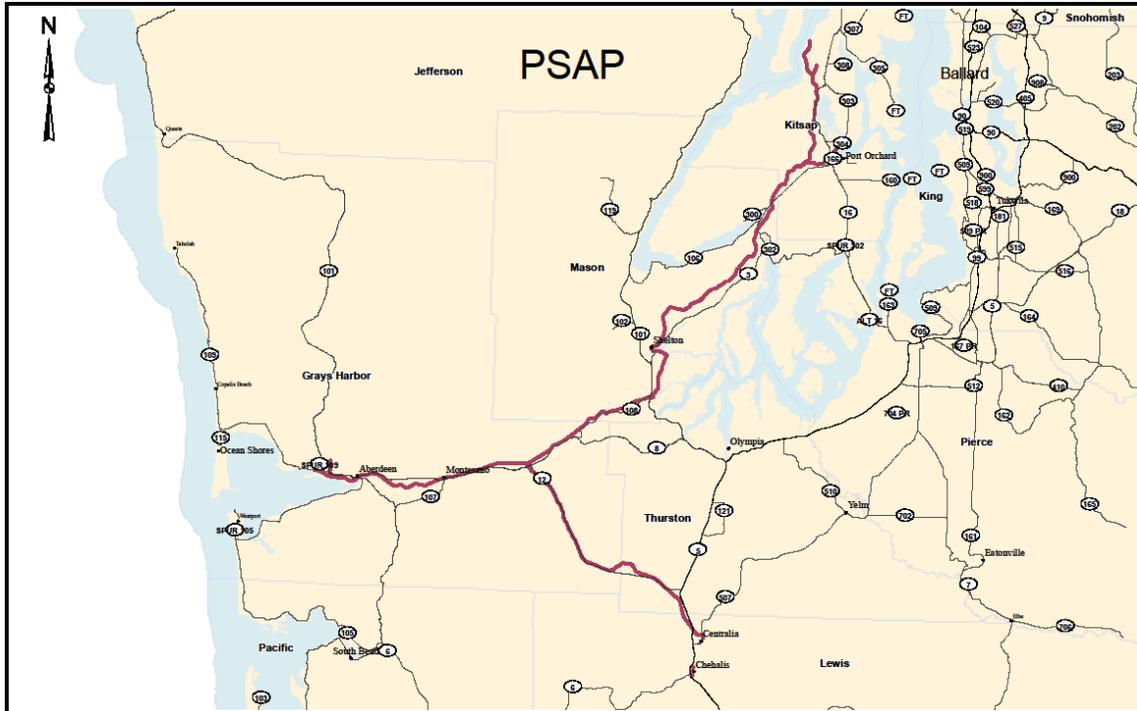
Puget Sound and Pacific Railroad

The Puget Sound and Pacific Railroad (PSAP), a Class III railroad, is headquartered in Elma, WA. PSAP interchanges with the BNSF and UP Class I railroads. PSAP runs through forest lands and serves major lumber customers. PSAP owns 109 miles of track and operates on 178 miles of track in Washington.

The line consists of the following segments: 1) Centralia to Elma to Aberdeen-Hoquiam, which connects with the Port of Grays Harbor; 2) Elma to Shelton, which connects with the U.S. Navy line that PSAP operates from Shelton to Bremerton and Bangor; and 3) Centralia to Chehalis to Curtis. The Port of Chehalis owns the section between Chehalis to Curtis. PSAP provides switching and haulage for UP at Aberdeen, Hoquiam, Grays Harbor, Shelton, and McCleary via Centralia.

The major commodities include lumber, logs, chemicals for the pulp and paper mills forest products, scrap metal, grains, aluminum, chemicals, and military cargo.

PSAP reported interstate operating revenue of \$8,115,618 and total gross intrastate operating revenue of \$64,840.



Royal Slope Line

The 26-mile WSDOT-owned Royal Slope Line (RS) is a remnant of the former Chicago, Milwaukee, St. Paul, and Pacific Railroad (Milwaukee Road). The eastern 20.5 miles were constructed as part of the “Pacific Extension,” which was built between 1906 and 1909. The northwestern 5.5-mile spur was built by the Milwaukee Road in 1967. The line connects Royal City to the CBRW at Othello. The line currently is dormant, but could play important roles in two projects under consideration by the state:

- Construction of a freight bypass between Ellensburg and Lind.**
 This project would rebuild the abandoned Milwaukee Road mainline to increase capacity on BNSF’s Auburn-Pasco route and avoid the slow, circuitous routing through the Yakima River Valley. Some mitigation efforts would be necessary due to the line’s passage through the Yakima Firing Range and steep grades on the original route.
- Redevelopment of the Hanford Site as a large industrial complex.**
 If the federal government decides to redevelop the site as a large industrial complex, an alternative to reconstructing the original Milwaukee Road line between Beverly and Lind may be a bypass. The bypass would travel through the Hanford Site to Pasco, opening up the site to direct Class I rail service and addressing the capacity and environmental issues that affect the existing BNSF Ellensburg-Yakima-Pasco mainline.



Tacoma Rail

Tacoma Rail is a municipally held Class III and terminal switching railroad which is comprised of three distinct and separate divisions—Tidelands Division, Mountain Division, and the Capital Division.

Tacoma Municipal Belt Line

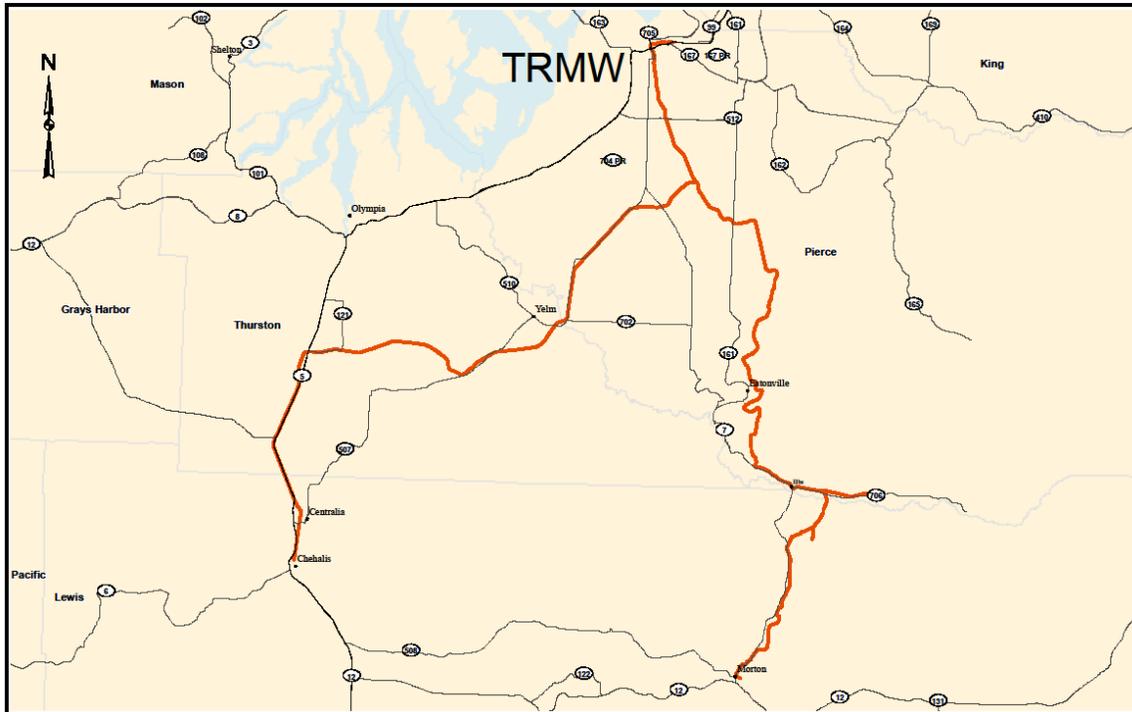
The Tacoma Municipal Belt Line (TMBL) is an operating division of the Tacoma Public Utilities. The Tidelands and Capital Divisions are under the governance of the Tacoma Public Utility Board.

Tacoma Rail does the switching for TMBL's Tidelands Division, which includes the Port of Tacoma.

In 2004 TMBL formed its Capital Division by leasing three miles of BNSF's Lacey Spur (St. Clair-Quadlok) and 10 miles of the remaining original Northern Pacific mainline (Olympia-Belmore), in conjunction with obtaining a freight service easement over seven miles of BNSF's Lakeview Subdivision (South Tacoma-Lakeview) and 11 miles of BNSF's Lakeview Spur (Lakeview-Nisqually).

BNSF retains trackage rights over these lines to access the portion of the Lakeview Subdivision south of Lakeview that it still serves.

TRMW reported a total interstate operating revenue of \$539,950 and total gross intrastate operating revenue of \$118,641 in 2008.



Tri-City and Olympia Railroad

The Tri-City and Olympia Railroad (TCRY) is a Class III railroad company that operates near Richland serving the Port of Benton and the U.S. Department of Energy, interchanging with BNSF and UP railroads in Richland. In 2009 TCRY ceased its Olympia operation. The TCRY provides repair shop services, on-site freight car switching, and rail-related services.

The TCRY transports many commodities including food, produce, military equipment, nuclear waste, feed, consumer products, beverages, agricultural commodities, grain, wood products, paper, coal and minerals, building materials, machinery and equipment, vehicles, chemicals, fertilizer as bulk goods, break bulk materials, feed stock, waste and scrap, liquids.²⁰

The TCRY reported no total gross intrastate operating revenue in their 2008 Annual Report to the UTC.

²⁰ <http://www.tcry.com>



Western Rail Switching

Western Rail Switching (WRS) is a switching and terminal railroad owned by Western Rail, Inc., a used locomotive seller located on the line. In 2004, Spokane County bought BNSF's Geiger Spur and designated WRS to operate it. In January 2009, realignment bypassed Fairchild Air Force Base, through which the spur had run. The west end of the spur now connects to the Eastern Washington Gateway Railroad (EWG) near Medical Lake. EWG now operates the Geiger Spur. WRS continues as an operating business.

Rail Service Corridors

The state currently has ten major rail corridors and 12 low-density corridors. These corridors are defined and operated by BNSF and UP. Exhibit 3B-1 lists all these corridors. While these rail corridors are defined by private railroads, the state has an interest to define rail corridors in terms of public benefits. The Freight Mobility and Strategic Investment Board (FMSIB) is authorized to define strategic rail corridors and update them periodically. Some short-line routes are critical to the economic viability of local communities and certain industries. The state needs to develop criteria to define rail corridors in terms of their impacts on the state's economic societal needs. A brief description of each rail service corridor is shown after the exhibit.

Exhibit 3B-1: Rail Service Corridors in Washington State

Railroads	Major Corridors	Low-Density Corridors
BNSF	Seattle-Spokane	Tukwila-Snohomish
	Seattle-Portland, Oregon (OR)	Woodinville-Redmond
	Portland, OR-Pasco	Burlington-Sumas
	Auburn-Pasco	Sumas-Lynden
	Pasco-Spokane	Burlington-Anacortes
	Spokane-Sandpoint, Idaho (ID)	Intalco-Cherry Point
	Everett-Vancouver, British Columbia (B.C.)	Marysville-Arlington
		Lakeview-Roy
		Spokane-Chewelah
UP	Hinkle, OR-Spokane	Spokane-Plummer, ID; Manito-Fairfield
	Spokane-Eastport, ID	Ayer Junction-Riparia
	Tacoma-Seattle	Wallula-Kennewick

BNSF Rail Service Corridors

BNSF operates over 1,604 miles in the state, which represents almost ten percent of their total system route miles operated. Service is provided over seven major corridors, and nine low-density corridors (Exhibit 3B-1). The major corridors provide the primary conduits to the North American rail network, while the low-density corridors offer collection/distribution services.

Seattle-Spokane Mainline

This 331-mile corridor consists of BNSF’s Scenic Subdivision (Seattle-Everett-Wenatchee) and Columbia River Subdivision (Wenatchee-Spokane). The line traverses the longest railroad tunnel in the United States, the 7.8-mile Cascade Tunnel under the summit of Stevens Pass. Between Seattle and Everett, there are an average of 50 trains per day, with 25 per day operating between Everett and Spokane. Four Amtrak *Cascades* trains operate daily between Seattle and Everett, along with eight *Sounder* commuter trains each weekday. Amtrak’s *Empire Builder* connecting Seattle and Chicago, operates once each way per day along the length of the corridor.

The line over Stevens Pass was completed in 1893 by the James Hill’s Great Northern Railway (GN), creating a single-carrier link between Seattle and St. Paul, Minnesota. The GN later acquired control of the Chicago, Burlington, and Quincy Railroad (CBQ) to provide a direct

connection between the Northwest and Chicago, the railroad hub of the nation. Today, the line serves the same role for BNSF, conveying their highest-priority traffic to and from the west coast ports.

With only a few local exceptions, the corridor is controlled entirely by Centralized Traffic Control (CTC).²¹ The portion of the line between Seattle and Everett is mostly two main tracks, and the majority of the Everett-Spokane segment is single-tracked. Maximum passenger train speed is 79 mph, maximum track speeds for freight trains are 60 mph between Wenatchee and Spokane and 50 mph between Seattle and Wenatchee, and railcars weighing up to 143 tons are permitted. The traffic base is primarily bridge movement of intermodal, agricultural and forest products, chemicals, automobiles, and other merchandise between the Northwest and the Midwest.

Seattle-Portland Mainline

BNSF's 177-mile Seattle Subdivision, connecting Seattle with Portland, OR, is the most heavily trafficked rail line in Washington State, conveying BNSF and UP trains (the latter via trackage rights) to and from the major Pacific Coast ports. The corridor hosts an average of 58 freight trains each day, with eight Amtrak *Cascades* trains operating daily, and 18 *Sounder* commuter trains connecting Seattle and Tacoma on weekdays. Amtrak's *Coast Starlight*, connecting Seattle and Los Angeles, operates once each way per day along the length of the corridor.

The portions of the corridor from Vancouver to Tenino and Tacoma to Seattle were completed by the Northern Pacific Railway by 1877, with the Oregon-Washington Railroad and Navigation Company obtaining trackage rights over the line. These segments were connected with the construction of the Port Townsend Southern Railroad along the shore of Puget Sound, with service beginning in 1914. It is this route via Point Defiance that carries the contemporary joint BNSF and UP mainline, with the Tenino-Yelm-Lakeview segment no longer hosting through traffic.

The entire corridor is two main tracks controlled by CTC, with the exception of short stretches in the Tacoma and Seattle terminals. Maximum train speeds are 79 mph for passenger and 60 mph for freight, with 143-ton-capacity cars permitted. Freight traffic includes intermodal, forest and agricultural products, refuse, chemicals, and finished automobiles.

²¹ Railroad signaling systems are discussed in Chapter 5.

Portland-Pasco Mainline

The 233-mile BNSF Fallbridge Subdivision connects Portland, OR with Pasco—the junction with mainlines to Seattle and Spokane and location of an important classification yard. The line closely follows the Columbia River for its entire length, connecting with the Oregon Trunk Subdivision (BNSF's sole connection between the Northwest and California) at Wishram. An average of 31 freight trains traverse the line daily, with the Portland section of Amtrak's *Empire Builder* running once each way per day.

Seeking a water-level line to the Pacific coast to complement his Cascade crossings at Stampede and Stevens Passes, James Hill constructed the Spokane, Portland and Seattle Railway along the north bank of the Columbia River, completing the line between Pasco and Portland in 1908. The line is essentially level, with a maximum eastward grade of 0.20 percent, and today continues to be a vital link in BNSF's national network.

The Fallbridge Subdivision is almost entirely single-track mainline, with short stretches of two main tracks around Portland and Wishram. Traffic control over the entire line is via CTC. Passenger trains are permitted to operate at 79 mph and freight trains at 60 mph; the maximum allowable railcar weight is 143 tons. Annual freight traffic consists of intermodal, forest and agricultural products, refuse, coal, chemicals and finished automobiles.

Auburn-Pasco Mainline

BNSF's 227-mile mainline across central Washington consists of the Stampede Subdivision between Auburn and Ellensburg, and the Yakima Valley Subdivision connecting Ellensburg and Pasco. The Stampede Subdivision crosses the Cascade Mountains at Stampede Pass, entering the height-restricted Stampede Tunnel at the summit. The Yakima Valley Subdivision traverses the twisting Yakima River Canyon, which limits train velocity and line capacity. An average of six trains a day use this freight-only corridor.

Required by the federal government to connect Puget Sound to its eastern lines, or face the consequence of losing land grants, the Northern Pacific completed its link between Tacoma and Pasco in 1888. Decades later, after a merger which combined the Northern Pacific; Great Northern; Spokane, Portland, and Seattle Railway; and Chicago, Burlington, and Quincy Railroad to form the Burlington Northern, and in response to the declining rail traffic of the early 1980s and the high cost of maintaining three mainlines across the state, Burlington Northern moth-balled the line over Stampede Pass in 1982; the majority of the corridor was sold to the

Washington Central Railroad. The line lay essentially dormant until the mid-1990s, when a period of unexpected growth stretched to the limit the capacity of BNSF's Stevens Pass and Columbia River routes, culminating in the decision to reacquire and reopen the line to allow the diversion of low-priority traffic from the vital intermodal corridors.

The corridor is almost entirely single track, except for a short stretch of two main tracks at Easton. Traffic control is via Track Warrant Control (TWC), with CTC islands in place at passing sidings. Maximum permitted train speed is 49 mph, and railcar weights up to 143 tons are allowed. Freight traffic includes forest, agricultural, and chemical products.

Pasco-Spokane Mainline

The 149-mile BNSF Lakeside Subdivision is a vital line connecting Pasco and Spokane, and its eastern 12 miles also hosts UP trains operating between Hinkle, OR, and Spokane. The line traverses rolling farmland as it skirts north of the Palouse Region. Approximately 33 BNSF freight trains operate on the line daily, along with a daily average of 11 UP trains on the shared line near Spokane. In addition, the Portland section of Amtrak's *Empire Builder* runs once each way per day.

The Lakeside Subdivision was Northern Pacific's original mainline from the east, completed between Spokane and Wallula in 1882. After the Burlington Northern merger of 1970, the line was operated in tandem with the parallel Spokane, Portland, and Seattle Railway route between Pasco and Spokane, before the latter was abandoned in the early 1990s in favor of the Northern Pacific route. The line currently is a vital link in BNSF's east-west network.

The corridor is primarily single-track, with short stretches of two main tracks in the vicinity of Spokane, Beatrice, and Pasco. Except for a short segment of Automatic Block Signaling (ABS) at Pasco, the entire line is controlled by CTC. Passenger trains are permitted to operate at 79 mph and freight trains at 60 mph; the maximum allowable railcar weight is 143 tons. Annual freight traffic consists of intermodal, forest and agricultural products, coal, chemicals and finished automobiles.

Spokane-Sandpoint, Idaho Mainline

BNSF's Kootenai River Subdivision between Spokane and Sandpoint, ID, commonly known as the "Funnel," is the second-busiest rail corridor in the state. The 69-mile line hosts an average of 46 freight trains each day, along with daily operation of Amtrak's *Empire Builder* service connecting Seattle and Portland to Chicago. Sandpoint also is the western end of the

Montana Rail Link (MRL) system; the MRL has operating rights over BNSF into Spokane.

The Funnel was part of the original Northern Pacific mainline, completed to Spokane in 1881. After the 1970 Burlington Northern merger, the Northern Pacific route was selected over the parallel ex-Great Northern route as the primary mainline from the east into Spokane, a function that it retains today for BNSF. Portions of the original Great Northern route continue under operation as segments of the Pend Oreille Valley Railroad and BNSF's Kettle Falls Subdivision, but abandonments have rendered that line no longer viable as a through route.

As the corridor experienced substantial growth in recent years, BNSF began to increase capacity by adding a second main track. As of April 2005, only 20 miles remained under single-track operation. Except for a short stretch in Spokane, the entire line is controlled by CTC. Annual freight traffic consists of intermodal, forest and agricultural products, coal, chemicals, and finished automobiles.

Everett-Vancouver, British Columbia Mainline

The 152-mile corridor spanning the Bellingham and New Westminster Subdivisions is the only remaining mainline link between the Washington State rail network and Canada (low-volume connections are served by BNSF at Sumas and KFR at Columbia Gardens, B.C.). An average of 23 freight trains operates on the line daily, with approximately 12 running through to Vancouver, B.C. Four daily Amtrak *Cascades* trains run between Everett and Vancouver, B.C.

This stretch of U.S. and Canadian railroad was completed by the Great Northern in 1891. From Blanchard to Bellingham, the line closely follows the shores of Samish and Bellingham Bays, a condition that limits both train speed and the ability to increase capacity without incurring great expenses. Additional delays are encountered while passing through Customs at the Blaine/White Rock border crossing. BNSF also operates a 2-mile stretch of former Milwaukee Road trackage in Bellingham that is owned by the Bellingham International Railroad (BIRR); the BIRR was formed for the purpose of preventing an industry from losing service on a line that BNSF intended to abandon.

The corridor is single-track CTC from Everett to New Westminster, with the exception of a few short stretches of Automatic Block Signaling/Occupancy Control System (ABS/OCS). From New Westminster to Vancouver, the line is double-track CTC. Maximum train speeds are:

- Everett to Delta Junction: Talgo²² 50 mph, passenger 35 mph, freight 15 mph.
- Delta Junction to Blaine: Talgo 79 mph, passenger 79 mph, freight 60 mph.
- Blaine to Vancouver, B.C.: Talgo 60 mph, passenger 60 mph, freight 40 mph.

Freight traffic includes intermodal, forest and agricultural products, refuse, chemicals, and finished automobiles.

Tukwila-Snohomish Branch Line

BNSF's 51-mile Woodinville Subdivision traverses the east side of the Seattle metropolitan area, connecting Tukwila, Renton, Bellevue, Woodinville, and Snohomish. BNSF operates one round-trip local on weekdays that serves industrial customers along the line, including delivery of 737 fuselages to Boeing's assembly plant in Renton.

The Woodinville Subdivision is a remnant of the former Northern Pacific (NP) mainline from Seattle to Sumas. The line to Sumas and a connection with the Canadian Pacific Railroad was completed by the Seattle, Lake Shore, & Eastern Railroad (SLS&E) in 1891; the SLS&E was subsequently absorbed into the NP in 1901. In the wake of the 1970 Burlington Northern merger, the Sumas line from Snohomish Junction to Sedro-Woolley was abandoned. In 2006 a study was conducted on the segment from Tukwila to Snohomish to consider potential future uses, including a parallel bicycle/pedestrian trail, mass transit, and as an emergency bypass route for freight traffic normally operating via Interbay, Edmonds, and Everett.

Traffic on the Woodinville Subdivision operates via TWC. Maximum permitted train speeds are 30 mph for passenger and 25 mph for freight. Railcar weights up to 143 tons can be operated from Snohomish Junction to Woodinville, while the remainder of the line is restricted to 134 tons. Tukwila-Woodinville freight corridor traffic consists of aircraft fuselages, forest products, and chemicals.

²² Talgo, Inc. manufactures high-speed articulated trains. These operate as a set, with adjacent cars sharing axles and wheels and functioning as a single unit. This technology increases stability and improves safety and the smoothness of the ride. Talgo trains were initially allowed into the United States on a temporary basis and were leased for use in the Pacific Northwest from 1994 through 1998. Today, five trains built by Talgo operate in the Pacific Northwest and British Columbia as the Amtrak *Cascades* service.

Woodinville-Redmond Branch Line

Splitting from the Woodinville Subdivision at Woodinville, BNSF's Issaquah Spur runs seven miles to Redmond. There is rarely a demand for service, and trains operate on an as-needed basis.

The line was constructed by the SLS&E to compete with NP's line to Tacoma, but construction towards Snoqualmie Pass stalled in 1890 at North Bend, and the focus of the SLS&E was adjusted to continue its efforts to build to Sumas. The east end of the line, between Snoqualmie and North Bend, has been maintained as a tourist railroad (the Snoqualmie Valley Railroad) since 1957 by The Northwest Railway Museum. The remaining trackage between Snoqualmie and Redmond has been abandoned.

BNSF operates the line via TWC, with permitted track speeds of 25 mph for passenger and 10 mph for freight. The line is restricted to 134-ton railcars.

Burlington-Sumas Branch Line

BNSF's Sumas Subdivision connects Burlington and Sumas via Sedro-Woolley. It is served by a daily round-trip to and from Everett, and a local that switches on-line industries. The 4.7 miles between Burlington and Sedro-Woolley are the easternmost surviving segment of a former Great Northern branch that connected Anacortes and Rockport; the remaining 40 miles of the subdivision are formed from the north end of the NP's ex-SLS&E line from Seattle to Sumas. BNSF interchanges with Canadian Pacific Railway and the Southern Railway of British Columbia at Sumas.

Train operation on the line is via TWC, with a maximum permitted train speed of 40 mph. The line is restricted to 134-ton railcars from Burlington to Lawrence, but 143-ton cars are permitted from Lawrence to Sumas. Freight traffic includes forest and agricultural products, and chemicals.

Sumas-Lynden Branch Line

Breaking off the Sumas Subdivision at Sumas, BNSF operates a short stretch of former Bellingham Bay & British Columbia Railway trackage southwest to Lynden. The Lynden Spur, constructed in 1889, is served as-needed by the road switcher based at Sumas. Track speed on the TWC-controlled line is 10 mph, with cars limited to 131.5 tons.

Burlington-Anacortes Branch Line

The Anacortes Spur of BNSF's Bellingham Subdivision extends 12.4 miles west from Burlington to serve a Texaco refinery at Fidalgo, and hosts daily rail service. This line segment is the westernmost surviving

segment of a former Great Northern branch that connected Anacortes and Rockport.

The line is operated as an industrial track with a speed limit of 10 mph, and railcars up to 134 tons are permitted. Traffic includes petrochemicals.

Intalco-Cherry Point Branch Line

BNSF's Cherry Point Subdivision splits off the Bellingham Subdivision at Intalco, near the town of Custer, and runs southwest to serve a collection of industries at Cherry Point. BNSF operates two daily round trips on the line.

The Cherry Point Subdivision is operated by TWC, with a speed limit of 25 mph and a maximum railcar weight of 143 tons. The line was built in 1965 to serve the Intalco aluminum smelter, and later a series of petroleum-related industries were constructed on the line. Traffic includes metals and petrochemicals.

Marysville-Arlington Branch Line

Breaking off the Bellingham Subdivision at Kruse Junction, BNSF's Arlington Spur connects Arlington to the national rail network, and is classified by BNSF as an industrial spur. The line is served twice weekly by a road switcher based in Everett. Track speed on the line is 10 mph, and 143-ton railcars are permitted.

Lakeview-Roy Branch Line

Although BNSF sold freight rights on the north end of its Lakeview Subdivision and the entire length of the connecting Lakeview Spur to Tacoma Rail in 2004, it retained the remainder of the Lakeview Subdivision from Lakeview to Roy. The customers on the line are the U.S. Army's Fort Lewis, which occasionally ships or receives military equipment, and Wilcox Farms, which receives feed at Roy twice a week. Track speed on the line is 10 mph, and 143-ton railcars are permitted; however, as of spring 2006, the only connection to the rest of the BNSF network, via the Lakeview Spur and Nisqually, is restricted to 134-ton railcars.

Spokane-Chewelah Branch Line

BNSF's Kettle Falls Subdivision was constructed in 1889 by the Spokane Falls and Northern Railway, and came under control of James Hill's Great Northern in 1898. In late 2004, BNSF sold the Kettle Falls and San Poil Subdivisions north of Kettle Falls to OmniTRAX's Kettle Falls International Railway (KFR), and leased the Kettle Falls-Chewelah segment to the KFR; the two railroads interchange daily at the latter

location. BNSF's remaining Kettle Falls Subdivision trackage, between Spokane and Chewelah, is rated at 40 mph with 143-ton railcar weights, and is controlled by TWC.

UP Service Corridors

Union Pacific (UP) operates over 678 miles in the state, which represents less than three percent of their total system route miles. Service is provided over two major corridors, and three low-density corridors. The major corridors provide the primary conduits to the nationwide rail network, while the low-density corridors offer collection/distribution services. These corridors are summarized in Exhibit 3B-1.

Hinkle, OR-Spokane Mainline

UP's 171-mile Ayer Subdivision connects Hinkle Yard in Hermiston, OR to the Spokane terminal. At Fish Lake, the north end of the line, UP uses trackage rights on BNSF's Lakeside Subdivision to access Spokane. The Ayer Subdivision hosts an average of 11 freight trains per day, and does not have passenger service.

The "Washy" line is comprised of four segments:

1. Hinkle, OR to milepost (MP) 201 was completed in 1951 by the Oregon-Washington Railroad and Navigation Company.
2. MP 201 to Wallula (MP 215) was constructed by the U.S. government and completed in 1952.
3. Wallula to MP 264 (near Ayer) was completed by the Snake River Valley Railroad Company in 1899, with much of the line being rebuilt by the U.S. government in the 1960s as a result of their Snake River Dam projects.
4. MP 264 to Fish Lake (MP 355) was completed in 1914 by a joint venture between the Oregon-Washington Railroad and Navigation Company and the North Coast Railroad.

BNSF has trackage rights over the line from Pasco to Ayer Junction, and then down the Riparia Subdivision to its namesake city, for the purposes of interchange with the Great Northwest Railroad.

The Ayer Subdivision is operated by CTC from Hinkle, OR to Page and for four miles between Ayer Junction and Joso; the remainder of the line is controlled by TWC/ABS. Maximum permitted train speed is 40 mph, except for a 30-mile stretch of 50 mph trackage between Page and Ayer Junction. Maximum railcar weights are 158 tons between Hinkle, OR and Wallula Junction, and 143 tons between Wallula Junction and Spokane. Freight traffic is primary forest and agricultural products, potash, and chemicals.

Spokane-Eastport, Idaho Mainline

The Spokane Subdivision of UP roughly parallels BNSF's Kootenai River Subdivision for 74 miles from Spokane to Sandpoint, ID then heads north to Eastport, ID. Since this line is not an essential component of UP's transcontinental mainline, quite unlike the parallel BNSF route, UP operates an average of only seven trains per day east of Spokane.

Completed in 1906 by the Spokane International Railroad and acquired by UP in 1958, the route retains a reminder of its origins through the commonly used "SI" nickname. Train operation on the single-track line is via TWC, with infrequent sidings. To address slow-speed issues, UP performed upgrades, added a siding just east of Spokane, and added CTC islands at existing passing sidings.

Freight traffic is primary overhead tonnage connecting with Canadian Pacific Railway at Eastport, ID, and includes forest and agricultural products, potash, and chemicals.

Tacoma-Seattle

UP travels over BNSF track between Portland, OR and Tacoma. From Tacoma, the UP switches to its own rail line to reach Seattle. This corridor was once owned by the Milwaukee Road and purchased by UP.

Spokane-Plummer, Idaho & Manito-Fairfield Branch Lines

UP operates two branch lines southeast of Spokane. The 45-mile Wallace Subdivision runs from Spokane to Plummer, ID, crossing the state line five miles east of Manito. Interchanges with the St. Maries Railroad (STMA) are performed at Plummer. The 13-mile Fairfield Industrial Lead departs the Wallace Subdivision at Manito and heads south to its namesake town.

The Spokane-Manito and Manito-Fairfield segments were constructed in 1888 to 1889 by the Washington & Idaho Railroad, while the Manito-Plummer segment was constructed between 1909 and 1914 by the Idaho & Western Railway (which was merged into the Chicago, Milwaukee, & Puget Sound Railway in 1912). These two branch lines serve the agricultural region of eastern Washington and western Idaho.

Ayer Junction-Riparia Branch Line

UP's 11-mile Riparia Subdivision connects the Ayer Subdivision to the Great Northwest Railroad (GRNW) at Riparia. BNSF has trackage rights over this line for the purpose of interchange with the GRNW, and the GRNW has trackage rights to MP 267.1 on the Ayer Subdivision to perform interchanges at Ayer (see the GRNW section for more

background information). The line was constructed in 1899 by the Snake River Valley Railroad, and was relocated in 1968 by the U.S. government.

Wallula-Kennewick Branch Line

The 19-mile UP Kalan Industrial Lead extends from the junction with the Ayer Subdivision at Wallula to the connection with the Tri-City & Olympia Railroad at Richland Junction. The line, which once extended west to Yakima, was completed in 1911 by the Oregon-Washington Railroad and Navigation Company and the North Coast Railroad.

Safety Regulatory History²³

The state has very little safety jurisdiction over rail operations, except for public highway-rail crossings. In 1980 Congress passed sweeping legislation, which essentially pre-empted states from most areas of safety regulation (as well as rates and service regulation). States can conduct inspections in various safety disciplines as part of a state-federal participation program, but any enforcement is done by the FRA. Washington currently employs four FRA-certified state inspectors. They are certified in hazardous materials, track, signals, and operating practices.

Any changes in regulation, through legislation or rulemaking at the state level, is therefore fairly limited and generally handled through the Washington Utilities and Transportation Commission (UTC).

Rail Employee Safety

For the most part, safety regulation of railroad employees is done at the federal level. The state does have some limited jurisdiction, which is split between the UTC and the Washington State Department of Labor and Industries (L&I) by a Memorandum of Understanding (MOU). In 2000 the UTC completed a rulemaking on safety in rail yards. The primary emphasis was on walking surfaces or “walkways,” where there was strong evidence of injuries to employees from uneven, unstable, or muddy walkways in the rail yards and around switches. The UTC also addressed other tripping/falling hazards such as excess debris laying around, overgrown vegetation, and other obstructions that got in the way of employees doing their jobs safely.²⁴

Remote Control Operations

In the late 1990s, railroad companies developed technology for operating locomotives from remote locations with no engineers or other employees

²³ Utilities and Transportation Commission, Paul Curl, email dated 9/24/2009.

²⁴ The Washington Administrative Code (WAC) 480-60-035 addresses railroad company employee walkways.

on board. For the most part, remote control operations are conducted in rail yards to move equipment around, but the UTC had concerns about operations over public highway-rail grade crossings. The UTC completed a rulemaking in 2001 to address these issues.²⁵

Community Notice

In the late 1990s, the UTC heard from a number of cities and towns that railroad companies were shutting down grade crossings, or otherwise disrupting traffic flow for routine construction and maintenance work, without any advance notice. The UTC addressed this issue with a rulemaking in 2001.²⁶

Blocked Crossings

Another issue that came up in the late 1990s was blocked crossings. The UTC received a high number of citizen and local government complaints about trains blocking grade crossings for long periods of time. The UTC addressed this issue with a rulemaking in 2001.²⁷

Train Speeds

Throughout the 1990s and early 2000s, the UTC reviewed petitions from railroads that wanted to increase speeds in certain areas to expand capacity and improve service. The UTC had, over the years, issued orders limiting train speeds in 162 communities around the state. Some of the orders dated back to the 1940s. The process for speed limit changes was extremely burdensome for the railroads, and local governments and their constituents had unrealistic expectations on what the UTC could do. Essentially, state law was obsolete and had not kept up with modern rail operations, safety improvements, changed circumstances, and federal law. In 2006 the UTC assisted the railroads in successful legislation that addressed the issue. The new law²⁸ established a procedure for changing speed limits in cities and towns that was substantially streamlined, but retained notice and opportunity to be heard for local governments and the public. The new law also effectively canceled the 162 speed limit orders in effect at that time.

Grade Crossing Protective Fund

The UTC had administered a grant program for upgrading and improving safety at public grade crossings since the 1960s. The program had been

²⁵ WAC 480-62-320 addresses railroad company remote controlled operations.

²⁶ WAC 480-62-305 addresses railroad company accident reports.

²⁷ WAC 480-62-220 addresses public grade crossings blockages (i.e. crossings shall not be blocked for more than ten consecutive minutes, if reasonably possible).

²⁸ RCW 81.48.040, transportation law specifying a procedure to fix or change speed limits.

successful, but was essentially declining by the late 1990s due to changes in federal funding, eligibility for funding, and limited purpose. In 2003 the UTC successfully proposed legislation that changed the eligibility to any public or private entity and expanded the purpose to include any rail safety related project. The program has been revitalized and since 2003, the UTC has awarded grants for hundreds of projects that would not have otherwise been done. Examples include trespass prevention, private crossing improvements, education, and sign replacement.²⁹

Statutes Housekeeping

In 2007 the UTC successfully proposed legislation to clean up the statutes related to railroads. Many of the state laws were obsolete, pre-empted, or otherwise useless and confusing. Some of these laws had been on the books since the early 1900s. While this legislation appears mundane, it has proven useful in reflecting current reality and making it clear to the railroads, public, and local governments what the UTC can and cannot do.

Quiet Zones

As communities have grown, especially along the railroad tracks, many people have complained about the noise of train horns at rail crossings. Many rail lines run right along Puget Sound and the Columbia River where new homes have been built. As rail traffic increased, the noise became a significant issue in some communities where the horn sounds 24 hours a day. No reasonable alternative existed, even though the noise was bothersome, because the train horns at crossings were an important safety feature. In 2006 the FRA adopted a rule which allowed communities to establish “quiet zones,” where railroads would be prohibited from blowing the horn except in an emergency.³⁰ In order to establish a quiet zone, the community is required to ensure continued safety at the affected crossings. While the rule is federal, the UTC has a role in the process of making sure the crossings meet federal guidelines, as well as suggesting changes and improvements to the crossings.

Crossing Consolidation/Closure

Since about 1994, the FRA, Federal Highway Administration (FHWA), railroads, and state regulatory agencies have encouraged closure or consolidation of both private and public grade crossings. The theory is that the safest grade crossing is no grade crossing and the UTC has

²⁹ RCW 81.53.281 and WAC 480-62, addressing railroad crossings and operations.

³⁰ The Final Horn Rule was promulgated by the FRA and published in the Federal Register on April 27, 2005. The rule required trains to sound a horn or whistle when approaching a highway railroad grade crossing. The intent was to develop a mechanism for a public authority to authorize a whistle/horn ban at a crossing(s) with the authority jurisdiction under the context of an existing state law or modified state law.

participated in projects over the last 15 years to close or consolidate crossings in Washington. Nationally some 40,000 grade crossings have been closed over the last 15 years. During that time, the UTC has been supportive of the effort and BNSF has been the most aggressive of any railroad in the country in eliminating grade crossings, including in Washington. In the last few years, the UTC has taken a more proactive approach to crossing closures and the UTC now has specific goals for crossing closures in their 2009-2011 strategic plan.

Operation Lifesaver

Operation Lifesaver, Inc. (OLI) is a national non-profit organization dedicated to providing education and outreach on rail safety issues. The UTC has strongly supported OLI efforts over the years and currently a UTC employee serves as the Washington State Operation Lifesaver coordinator.

Appendix 3-C: Intermodal Facility Commodity Descriptions

The following information was gathered from the USDOT Bureau of Transportation Statistics, its National Transportation Atlas Database 2009 and Intermodal Terminal Facilities data sets.

Name	Type	Mode Type	Commodity Description
Alaska Airlines	Air	Air & Truck	<ul style="list-style-type: none"> • Meat, Fish, and Preparations
Americold Logistics, Inc., Burlington, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Meat, Fish, and Preparations • Other Crops • Other Prepared Food Stuffs
Americold Logistics, Inc., Pasco, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Meat, Fish, and Preparations • Other Crops • Other Prepared Food Stuffs
Apex Cold Storage, Kent, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Alcoholic Beverages • Animal Feed, Pet Food, and Products of Animal Orig • Articles of Stone, Ceramic, Or Glass • Forest Products • Gravel and Crushed Stone • Meat, Fish, and Preparations • Mechanical Machinery • Other Crops • Other Prepared Food Stuffs • Wood Products
Atlas Columbia Warehouse, Inc., Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Chemical Preparations N.E.C. • Forest Products • Meat, Fish, and Preparations • Mechanical Machinery • Other Crops • Other Metal, and Articles of Metal • Plastics and Rubber • Pulp, Newsprint, Paper, and Paperboard • Waste and Scrap • Wood Products
Bellingham Cold Storage, Bellingham, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Furniture and Furnishings • Meat, Fish, and Preparations • Mechanical Machinery • Other Crops • Other Prepared Food Stuffs
Blaine Harbor	Port	Port & Truck	<ul style="list-style-type: none"> • Meat, Fish, and Preparations
BNSF, Tacoma Blair, WA	Rail	Truck - Port - Rail	<ul style="list-style-type: none"> • Meat, Fish, and Preparations • Other Crops

Name	Type	Mode Type	Commodity Description
Bulk Service Transport/James J. William's, Spokane, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Basic Chemicals Fertilizers Metallic Ores Natural Sands Except Metal-Bearing Non-Metallic Mineral Products N.E.C. Waste and Scrap
Cascade Warehouse Co., Inc., Chehalis, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Forest Products Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Non-Metallic Mineral Products N.E.C. Plastics and Rubber Wood Products
Columbia Colstor, Inc., Kennewick, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Alcoholic Beverages Other Prepared Food Stuffs
Columbia Colstor, Inc., Quincy, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Furniture and Furnishings Meat, Fish, and Preparations Other Prepared Food Stuffs
Columbia Colstor, Inc., Woodland, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Animal Feed, Pet Food, and Products of Animal Orig Meat, Fish, and Preparations Mechanical Machinery Other Crops Other Prepared Food Stuffs
Continental Grain Temco, Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Cereal Grains Other Crops
CSX Intermodal, Tacoma, WA	Rail	Truck - Port - Rail	<ul style="list-style-type: none"> Meat, Fish, and Preparations Other Crops
Daybreak Dispatch and Rail Transfer	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Forest Products Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Other Metal, and Articles of Metal Wood Products
Desticon Transportation Services, Inc., Sumas, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Forest Products
Devries Moving, Packing, Storage, Spokane, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Furniture and Furnishings Mechanical Machinery Non-Metallic Mineral Products N.E.C. Other Metal, and Articles of Metal Pulp, Newsprint, Paper, and Paperboard
Gary Hamilton Trucking, Inc., Puyallup, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Other Metal, and Articles of Metal Wood Products
GATX Terminals Corporation, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Coal Refined Petroleum Products N.E.C.

Name	Type	Mode Type	Commodity Description
Inland Empire Distribution Systems, Spokane, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Electrical Machinery and Equipment Fertilizers Furniture and Furnishings Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Non-Metallic Mineral Products N.E.C. Other Crops Other Metal, and Articles of Metal Other Prepared Food Stuffs Plastics and Rubber Precision Instruments and Apparatus Refined Petroleum Products N.E.C. Wood Products
Kenyon Zero Storage, Inc., Prosser, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Alcoholic Beverages Animal Feed, Pet Food, and Products of Animal Orig Meat, Fish, and Preparations Other Crops Other Prepared Food Stuffs
Kinder Morgan Bulk Terminals, Inc., Vancouver, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Animal Feed, Pet Food, and Products of Animal Orig Articles of Stone, Ceramic, Or Glass Coal Fertilizers Gravel and Crushed Stone Monumental Or Building Stone Natural Sands Except Metal-Bearing Non-Metallic Mineral Products N.E.C. Other Metal, and Articles of Metal Refined Petroleum Products N.E.C.
Konoike Pacific Tacoma Terminals, Inc., Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Animal Feed, Pet Food, and Products of Animal Orig Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Forest Products Furniture and Furnishings Iron and Steel In Primary Forms and Basic Shapes Meat, Fish, and Preparations Mechanical Machinery Milled Grain Products and Preparations and Bakery Miscellaneous Manufactured Products Non-Metallic Mineral Products N.E.C. Other Crops Other Prepared Food Stuffs Plastics and Rubber Precision Instruments and Apparatus Pulp, Newsprint, Paper, and Paperboard Wood Products
Lile Logistics Service, Kent, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Engines, Parts, and Accessories For Motor Vehicles Furniture and Furnishings Mechanical Machinery Pulp, Newsprint, Paper, and Paperboard Textiles, Leather, and Articles Wood Products

Name	Type	Mode Type	Commodity Description
MacMillan, Piper, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Articles of Stone, Ceramic, Or Glass • Chemical Preparations N.E.C. • Forest Products • Iron and Steel In Primary Forms and Basic Shapes • Meat, Fish, and Preparations • Mechanical Machinery • Other Metal, and Articles of Metal • Other Prepared Food Stuffs • Pulp, Newsprint, Paper, and Paperboard • Wood Products
MacMillan, Piper, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Articles of Stone, Ceramic, Or Glass • Basic Chemicals • Fertilizers • Forest Products • Iron and Steel In Primary Forms and Basic Shapes • Other Metal, and Articles of Metal • Other Prepared Food Stuffs • Plastics and Rubber • Wood Products
MacMillan, Piper, Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Articles of Stone, Ceramic, Or Glass • Chemical Preparations N.E.C. • Meat, Fish, and Preparations • Mechanical Machinery • Metallic Ores • Other Metal, and Articles of Metal • Other Prepared Food Stuffs • Pulp, Newsprint, Paper, and Paperboard • Wood Products
Mid-Columbia Warehouse, Inc., Pasco, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Chemical Preparations N.E.C. • Converted Paper and Converted Paper Products • Iron and Steel In Primary Forms and Basic Shapes • Mechanical Machinery • Other Metal, and Articles of Metal • Other Prepared Food Stuffs • Plastics and Rubber • Pulp, Newsprint, Paper, and Paperboard • Waste and Scrap • Wood Products
Morgan Trucking, Inc., Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Forest Products • Iron and Steel In Primary Forms and Basic Shapes • Plastics and Rubber • Wood Products

Name	Type	Mode Type	Commodity Description
Oroville Bin and Pallet, Oroville, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Electrical Machinery and Equipment Furniture and Furnishings Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Non-Metallic Mineral Products N.E.C. Other Metal, and Articles of Metal Other Prepared Food Stuffs Plastics and Rubber Wood Products
Pacific Coast Container Northwest, Harbor Island, WA	Rail	Truck - Port - Rail	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Motor Vehicles Other Crops Other Prepared Food Stuffs Pulp, Newsprint, Paper, and Paperboard Wood Products
Pacific Coast Container Northwest, Tacoma, WA	Rail	Truck - Port - Rail	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Forest Products Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Motor Vehicles Other Crops Other Prepared Food Stuffs Pulp, Newsprint, Paper, and Paperboard
Pacific Coast Container Northwest Seattle, WA	Rail	Truck - Port - Rail	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Forest Products Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Motor Vehicles Other Crops Other Prepared Food Stuffs Pulp, Newsprint, Paper, and Paperboard
Pacific Terminals Limited, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Forest Products Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Metallic Ores Other Metal, and Articles of Metal Other Prepared Food Stuffs Plastics and Rubber Pulp, Newsprint, Paper, and Paperboard Refined Petroleum Products N.E.C.
Pellissier Trucking, Inc., Dallasport, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Electrical Machinery and Equipment Forest Products Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Other Metal, and Articles of Metal Plastics and Rubber Pulp, Newsprint, Paper, and Paperboard Wood Products

Name	Type	Mode Type	Commodity Description
Pend Oreille Valley Railroad, Usk, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Meat, Fish, and Preparations • Other Crops
Port of Anacortes	Port	Port & Truck	<ul style="list-style-type: none"> • Crude Petroleum • Forest Products • Meat, Fish, and Preparations • Metallic Ores • Other Crops • Refined Petroleum Products N.E.C.
Port of Bellingham	Port	Port & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Basic Chemicals • Forest Products • Meat, Fish, and Preparations • Metallic Ores • Non-Metallic Mineral Products N.E.C. • Other Crops • Wood Products
Port of Clarkston	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Forest Products
Port of Everett	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Basic Chemicals • Engines, Parts, and Accessories For Motor Vehicles • Forest Products • Gravel and Crushed Stone • Meat, Fish, and Preparations • Mechanical Machinery • Metallic Ores • Miscellaneous Manufactured Products • Motor Vehicles • Natural Sands Except Metal-Bearing • Other Crops • Transportation Equipment N.E.C. • Wood Products
Port of Grays Harbor	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Cereal Grains • Chemical Preparations N.E.C. • Converted Paper and Converted Paper Products • Forest Products • Iron and Steel In Primary Forms and Basic Shapes • Meat, Fish, and Preparations • Mechanical Machinery • Metallic Ores • Motor Vehicles • Other Crops • Other Metal, and Articles of Metal • Refined Petroleum Products N.E.C. • Wood Products
Port of Kalama	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Basic Chemicals • Cereal Grains • Chemical Preparations N.E.C. • Forest Products • Meat, Fish, and Preparations • Mechanical Machinery • Metallic Ores • Motor Vehicles • Other Crops • Pulp, Newsprint, Paper, and Paperboard • Wood Products

Name	Type	Mode Type	Commodity Description
Port of Longview	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Basic Chemicals • Motor Vehicles • Non-Metallic Mineral Products N.E.C. • Pulp, Newsprint, Paper, and Paperboard • Wood Products
Port of Olympia	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Forest Products • Fuel Oils Including Aviation Turbine • Gasoline • Metallic Ores • Other Crops • Refined Petroleum Products N.E.C. • Wood Products
Port of Pasco	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Meat, Fish, and Preparations • Refined Petroleum Products N.E.C.
Port of Port Angeles	Port	Port & Truck	<ul style="list-style-type: none"> • Pulp, Newsprint, Paper, and Paperboard • Wood Products
Port of Port Townsend	Port	Port & Truck	<ul style="list-style-type: none"> • Meat, Fish, and Preparations
Port of Seattle	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Cereal Grains • Gravel and Crushed Stone • Iron and Steel In Primary Forms and Basic Shapes • Meat, Fish, and Preparations • Milled Grain Products and Preparations and Bakery • Monumental Or Building Stone • Motor Vehicles • Natural Sands Except Metal-Bearing • Non-Metallic Mineral Products N.E.C. • Other Crops • Other Metal, and Articles of Metal • Other Prepared Food Stuffs • Pulp, Newsprint, Paper, and Paperboard • Refined Petroleum Products N.E.C. • Waste and Scrap • Wood Products
Port of Tacoma	Port	Truck - Port - Rail	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Basic Chemicals • Cereal Grains • Coal • Crude Petroleum • Engines, Parts, and Accessories For Motor Vehicles • Forest Products • Gravel and Crushed Stone • Meat, Fish, and Preparations • Mechanical Machinery • Metallic Ores • Miscellaneous Manufactured Products • Motor Vehicles • Natural Sands Except Metal-Bearing • Non-Metallic Mineral Products N.E.C. • Refined Petroleum Products N.E.C. • Textiles, Leather, and Articles • Waste and Scrap • Wood Products

Name	Type	Mode Type	Commodity Description
Port of Tacoma Alumina Handling Facility Terminal	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Cereal Grains Forest Products Metallic Ores Motor Vehicles Wood Products
Port of Vancouver, USA	Port	Port & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Basic Chemicals Cereal Grains Fertilizers Forest Products Iron and Steel In Primary Forms and Basic Shapes Meat, Fish, and Preparations Mechanical Machinery Metallic Ores Motor Vehicles Natural Sands Except Metal-Bearing Non-Metallic Mineral Products N.E.C. Other Crops Other Metal, and Articles of Metal Pulp, Newsprint, Paper, and Paperboard Waste and Scrap Wood Products
Port of Wilma	Port	Port & Truck	<ul style="list-style-type: none"> Cereal Grains Pulp, Newsprint, Paper, and Paperboard Wood Products
Puget Sound International, Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Animal Feed, Pet Food, and Products of Animal Orig Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Electrical Machinery and Equipment Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Other Metal, and Articles of Metal Other Prepared Food Stuffs Plastics and Rubber Pulp, Newsprint, Paper, and Paperboard Textiles, Leather, and Articles Wood Products
Puget Sound Packaging, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Alcoholic Beverages Articles of Stone, Ceramic, Or Glass Gravel and Crushed Stone Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Motor Vehicles Non-Metallic Mineral Products N.E.C. Other Crops Other Prepared Food Stuffs Waste and Scrap
Rainier Cold Storage, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Animal Feed, Pet Food, and Products of Animal Orig Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Other Prepared Food Stuffs

Name	Type	Mode Type	Commodity Description
Seafreeze Cold Storage, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Furniture and Furnishings • Meat, Fish, and Preparations • Mechanical Machinery • Other Prepared Food Stuffs
Seattle Tacoma International Airport	Air	Air & Truck	<ul style="list-style-type: none"> • Animal Feed, Pet Food, and Products of Animal Orig • Furniture and Furnishings • Meat, Fish, and Preparations • Other Crops • Other Prepared Food Stuffs
Skog Loading, Inc., Winlock, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Forest Products • Wood Products
Tidewater Terminal Co., Pasco, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Basic Chemicals • Chemical Preparations N.E.C. • Coal • Fertilizers • Mechanical Machinery • Refined Petroleum Products N.E.C. • Waste and Scrap
Tidewater Terminal Co., Pasco, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Basic Chemicals • Chemical Preparations N.E.C. • Fertilizers • Fuel Oils Including Aviation Turbine • Refined Petroleum Products N.E.C.
Tri Pak, Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Chemical Preparations N.E.C. • Gravel and Crushed Stone • Iron and Steel In Primary Forms and Basic Shapes • Mechanical Machinery • Natural Sands Except Metal-Bearing • Non-Metallic Mineral Products N.E.C. • Other Metal, and Articles of Metal • Plastics and Rubber • Pulp, Newsprint, Paper, and Paperboard • Waste and Scrap • Wood Products
Tri-City Railroad Company, Richland, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Alcoholic Beverages • Articles of Stone, Ceramic, Or Glass • Cereal Grains • Electrical Machinery and Equipment • Forest Products • Furniture and Furnishings • Iron and Steel In Primary Forms and Basic Shapes • Mechanical Machinery • Miscellaneous Manufactured Products • Other Crops • Other Metal, and Articles of Metal • Other Prepared Food Stuffs • Plastics and Rubber • Precision Instruments and Apparatus
Trimax, Ltd (Weyerhaeuser), Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Articles of Stone, Ceramic, Or Glass • Forest Products • Gravel and Crushed Stone • Non-Metallic Mineral Products N.E.C. • Plastics and Rubber • Wood Products

Name	Type	Mode Type	Commodity Description
Trimax, Ltd (Weyerhaeuser), Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Forest Products Gravel and Crushed Stone Non-Metallic Mineral Products N.E.C. Plastics and Rubber Wood Products
United Motor Freight, Inc., Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Electrical Machinery and Equipment Forest Products Iron and Steel In Primary Forms and Basic Shapes Mechanical Machinery Other Metal, and Articles of Metal
United Warehouse, Kent, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Alcoholic Beverages Articles of Stone, Ceramic, Or Glass Cereal Grains Chemical Preparations N.E.C. Mechanical Machinery Other Metal, and Articles of Metal Other Prepared Food Stuffs Pulp, Newsprint, Paper, and Paperboard
United Warehouse, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Alcoholic Beverages Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Mechanical Machinery Other Metal, and Articles of Metal Other Prepared Food Stuffs Pulp, Newsprint, Paper, and Paperboard
Up, Seattle, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Meat, Fish, and Preparations Other Crops
Vanport Warehousing, Inc.	Rail	Rail & Truck	<ul style="list-style-type: none"> Articles of Stone, Ceramic, Or Glass Chemical Preparations N.E.C. Forest Products Meat, Fish, and Preparations Mechanical Machinery Other Crops Other Metal, and Articles of Metal Pulp, Newsprint, Paper, and Paperboard Wood Products
Washington Cold Storage, Inc., Kent, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Animal Feed, Pet Food, and Products of Animal Orig Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Other Crops Other Prepared Food Stuffs
Washington Cold Storage, Inc., Puyallup, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Alcoholic Beverages Animal Feed, Pet Food, and Products of Animal Orig Furniture and Furnishings Meat, Fish, and Preparations Mechanical Machinery Other Crops Other Prepared Food Stuffs
Weatherproof Reload and Storage, Spokane, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> Iron and Steel In Primary Forms and Basic Shapes Meat, Fish, and Preparations Mechanical Machinery Other Crops Other Metal, and Articles of Metal Waste and Scrap

Name	Type	Mode Type	Commodity Description
Western Warehousing Services, Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Alcoholic Beverages • Articles of Stone, Ceramic, Or Glass • Furniture and Furnishings • Miscellaneous Manufactured Products • Other Prepared Food Stuffs • Plastics and Rubber • Wood Products
Weyerhaeuser Company Wood Chip Facility, Tacoma, WA	Rail	Rail & Truck	<ul style="list-style-type: none"> • Forest Products • Wood Products

Appendix 4: Freight Forecast

Sources

Future demand of rail freight services are assessed based on five main studies, including three major data sources recommended by the *2009 American Association of State Highway and Transportation Officials (AASHTO) Rail Planning Guidelines: 2007 Surface Transportation Board Waybill Sample Data*, United States Department of Transportation (USDOT) Freight Analysis Framework (FAF), and Global Insight. In addition, the Washington State Transportation Commission (WSTC) *Statewide Rail Capacity and System Needs Study* and Washington State Department of Transportation (WSDOT) and Washington State Public Port Association (WPPA) *2009 Marine Cargo Forecast* provide information and data that are specific for Washington State.

- WSTC: *Statewide Rail Capacity and System Needs Study – Freight Transportation Demand Forecasts*, 2006.
- USDOT Federal Highway Administration: *2006 Updates of Freight Analysis Framework Forecast*.
- WPPA/WSDOT: *2009 Washington State Marine Cargo Forecast*.
- United States (U.S.) Surface Transportation Board (STB): *2007 Rail Waybill Sample Data*.
- AASHTO: *Freight Demand and Logistic Bottom Line Report (Draft)*, 2006.

Methodology and Forecasts

In general, the WSDOT State Rail and Marine Office adopted the forecast results from the above sources. For rail mode related forecasts, 2007 Waybill Data was used as a base for projection since data for 2008 was not available as we conducted the forecasts.

The 2008-2009 recession had profound impacts on U.S. and world economies and many effects are likely to take many years to understand. Therefore, the forecast results in this plan could be slightly optimistic from the perspective of a long-term forecast. The forecasts will be updated as the data for 2008 and 2009 become available.

While the most recent recession data for freight is not available and, therefore, not incorporated into most of these analytical models, the sources of forecast used in this plan are long-term data. Historical data used in those forecasts reflect the effects of previous recessions. In addition, while the economy went into recession in 2008, state port-related

imports and exports started to decline in 2007. Rail traffic in 2007 was not as strong as the economy itself in that year. Therefore, the correction factor of this recession to the forecast results would not be dramatic, but could be significant when the data are incorporated into to the long-term trends.

Statewide Rail Capacity and System Needs Study – Freight Transportation Demand Forecasts (2006)

This study was conducted by Cambridge Systematics. The researchers examined recent economic and trade forecasts for the state, the Pacific Northwest, and the United States focusing on four primary sectors—agriculture and foods products, merchandise trade and retail, manufacturing, and lumber and wood products. In addition, two other sectors of unique interest—military and municipal solid waste—were also examined. Particular attention was paid to the Pacific Rim trade that will account for much of the volume of import containers and exports (grains, fertilizers, food products, wood products, etc.) that is expected to move by rail in the state.

Among the forecasts reviewed was the *2009 Marine Cargo Forecast* for the WPPA, which used economic and trade forecasts developed by consulting team member, Global Insight, as well as individual trade forecasts developed for the Port of Tacoma and the Port of Seattle. Also reviewed were the Lower Columbia River cargo forecasts produced for the Port of Vancouver, Washington, and the Port of Portland, Oregon; and the Oregon State Commodity Flow forecasts produced for the Oregon Department of Transportation.

Global Insight used its own forecasts and local sources to develop and adapt economic forecasts for industries that are domestic and local rail shippers. From these and other relevant forecasts, Global Insight synthesized economic growth conditions and trend projections, making adjustments and extensions where appropriate, to bracket the most likely growth rates and freight forecasts for the state. The resulting forecasts are annual long-term forecasts capturing the path of growth for 20 years, as well as the forecast endpoint level of projected economic activity and trade.

Forecast data for the years 2015 and 2025 was created by routing the rail traffic and other modes across the respective modal networks. The carload and IMX forecast synthesizes economic growth conditions and trend projections, making adjustments and extensions, where appropriate, to bracket the most likely growth rates and freight forecasts for the state. The resulting forecast projects the long-term growth through 2025.

Washington State’s freight railroads can expect continued growth over the next 10 and 20 years. Rail freight is projected to grow at 2.2 percent compound annual growth rate to 2015 and at a 2.3 percent annual growth from 2015 to 2025. This is a steady 2.2 percent growth rate over the next 20 years. Exhibit 4A-1 shows the growth of rail tonnage in the forecast years. While local and inbound traffic continue to grow, they will slow to slightly lower levels of growth after 2015. Outbound and through traffic will both grow at higher rates in the more distant future as compared to the next 10 years.

Exhibit 4A-1: Projected Rail Freight Traffic Growth Rates

Growth Rates of Rail Traffic by Tonnage			
Class	2004-2015	2015-2025	2004-2025
Through	1.90%	2.30%	2.10%
Local	3.30%	2.30%	2.80%
Inbound	1.50%	1.20%	1.40%
Outbound	3.20%	3.80%	3.50%
Total	2.20%	2.30%	2.20%

Source: Cambridge Systematics, 2006

WSDOT State Rail and Marine Office adapted the rail traffic growth rate to project future growth. The rail freight data from the 2007 STB Waybill Sample is used as a base. While the economy went into recession in 2008, port related imports and exports started to decline in 2007. Rail traffic in 2007 was not as strong as the economy in that year. The state’s freight railroads activity can expect continued growth over the next 10 and 20 years. The railroads are expected to move more than 152.1 million domestic tons of freight in 2020, up from 116.3 million in 2007, a 2.1 percent compound annual growth rate. In 2030, it is projected that there will be close to 189.9 million tons moved, a 2.2 percent annual growth over the 10 years from 2020 to 2030, and a steady 2.2 percent growth rate over the 23 years between 2007 and 2030.

Exhibit 4A-2 shows the growth of rail tonnage in the forecast years. While local and inbound traffic continue to grow, they will slow to slightly lower levels of growth from 2020 to 2030 compared to 2007 to 2020 growth levels. Outbound and through traffic will both grow at higher rates in the more distant future as compared to the next 10 years.

**Exhibit 4A-2: Washington State Rail Freight
2007, 2020, and 2030 (Million Tons)**

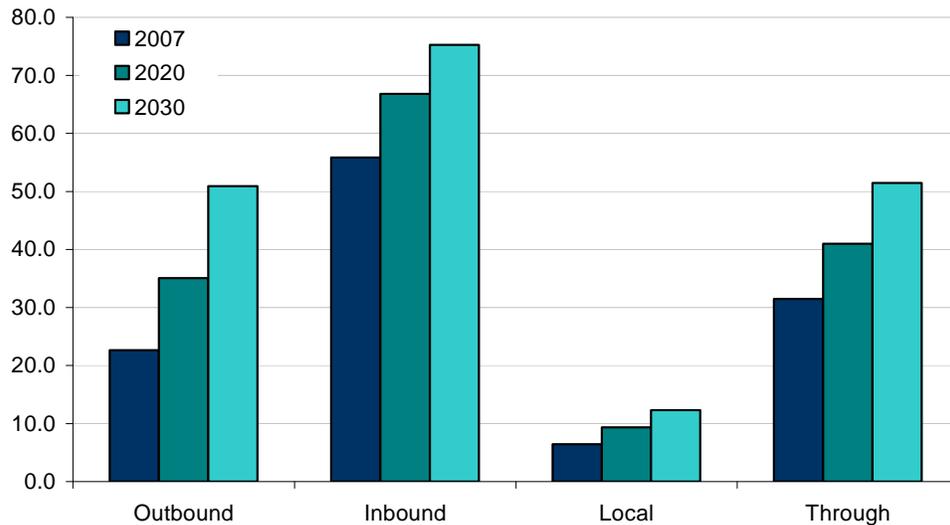
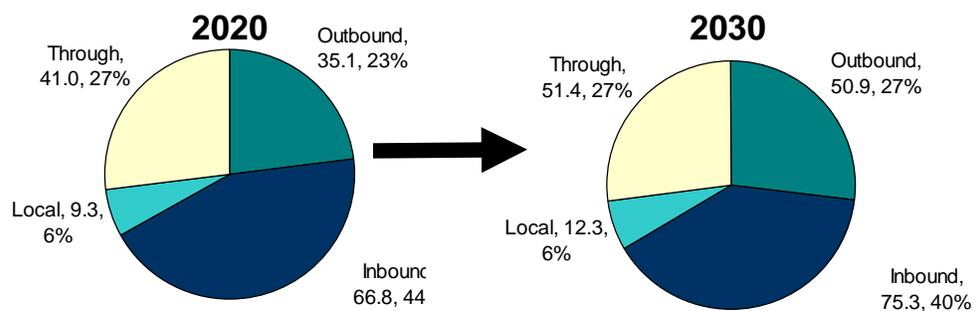


Exhibit 4A-3 shows the projected distribution of the inbound, outbound, through, and local shares of the state’s total freight rail tonnage for both forecast years of 2020 and 2030. Of all shares, outbound traffic is projected to continue to grow the most between 2020 and 2030, growing from 23 percent to 27 percent between 2007 and 2020, and expanding to 35 million tons. Local and through traffic is projected to continue to maintain approximately 6 percent and 27 percent of the tonnage, respectively, over the next 10 and 20 years. Inbound traffic is projected to encompass a smaller percent of the traffic as it will claim 44 percent of the tonnage in 2020 and only 40 percent in 2030.

Exhibit 4A-3: Rail Freight Distribution (Million Tons)



Source: WSDOT State Rail and Marine Office

The projected distribution of traffic tonnage by commodity through the forecast years is shown in Exhibit 4A-4. Farm products are projected to continue to be a significant tonnage commodity group, growing to more than 64.7 million tons in 2030, up from 36.1 million tons in 2007. Not surprisingly, miscellaneous mixed shipments, primarily in the form of

imports, are projected to increase from 11.9 million tons in 2007 to 14.3 million in 2020 and 17.6 million in 2030.

Exhibit 4A-4: Projected Rail Freight Growth of Top 10 Commodities – Washington 2007-2030 (Million Tons)

Commodity	Year					
	2007	2010	2015	2020	2025	2030
Farm products	36.1	38.8	42.8	48.1	55.2	64.7
Lumber or wood products, excluding furniture	12.9	12.8	12.0	11.2	10.2	9.2
Miscellaneous mixed shipments	11.9	12.6	13.4	14.3	16.0	17.6
Coal	10.6	11.0	12.7	14.8	17.1	19.9
Food and kindred products	7.3	7.2	7.9	9.3	11.0	13.2
Chemicals or allied products	6.8	7.8	8.2	8.7	9.1	9.5
Waste or scrap materials not identified by producing industry	5.1	5.1	5.8	6.6	7.6	8.9
Pulp, paper, or allied products	4.1	4.1	4.2	4.2	4.2	4.3
Clay, concrete, glass, or stone products	3.1	3.4	3.9	4.5	5.1	6.0
Transportation equipment	2.5	2.5	2.3	2.3	2.5	2.8
State Total	116.3	122.2	131.9	145.7	161.9	183.0

Source: WSDOT State Rail and Marine Office – Analysis and forecast based on FHWA Freight Analysis Framework data and 2007 Surface Transportation Board Waybill data.

USDOT Federal Highway Administration: 2006 Updates of Freight Analysis Framework Forecast – Commodity Origin-Destination Database: 2002-2035

FAF estimates commodity flows and related freight transportation activity among states, sub-state regions, and major international gateways. It also forecasts future flows among regions and relates those flows to the transportation network. FAF includes an origin-destination database of commodity flows among regions, and a network database in which flows are converted to truck payloads and related to specific routes.

The FAF commodity origin-destination database includes tons and value of commodity movements among regions by mode of transportation and type of commodity. Data sources documented in various papers are available at www.ops.fhwa.dot.gov/freight/freight_analysis/faf. FAF statistics do not match those in mode-specific publications, primarily due to different definitions that were used to avoid double counting. Methods in developing the 2002 base year data are transparent; and it has been

expanded to cover all modes and significant sources of shipments. Future projected data covers years from 2010 to 2035 with a 5-year interval. The approach/general procedure and assumptions used by the modeling packages have been documented and are available for download at www.ops.fhwa.dot.gov/freight/freight_analysis/faf. Detailed methods about modeling are available at www.ops.fhwa.dot.gov/freight/freight_analysis/faf/faf2_reports/report3/index.htm.

The forecasts built in the FAF database were developed based on long-term growth perspectives and did not reflect the new challenges presented by the current recession. Again, the growth rates could be optimistic and the forecasts of this plan will be updated as the new data becomes available. The WSDOT State Rail and Marine Office adapted the rail traffic growth rate to project future growth of the top ten state commodities shipped by rail. The rail freight data from 2007 STB Waybill Sample is used as the base. National growth forecasts are directly adopted from FAF database.

The national demand for freight rail services are driven by three factors: population growth, globalization, and technology (primarily, containerization). Assuming moderate rates of economic growth—between 2.5 to 3 percent a year—the tonnage of freight moved in the United States is likely to increase 75 percent in 20 years (2006 to 2035) (Exhibit 4A-5). This rate of growth is about the same as the last 20 years and roughly tracks growth in the U.S. Gross Domestic Product. The problem is that no provisions have been made to accommodate this growth, and the nation is in the early stages of a freight transportation capacity crisis. This section first looks at the projected growth in the demand for freight traffic (both total and for rail) and then discusses the rail industry response to this demand growth.

The growth in freight tonnage is expected to continue at 2.5 percent to 3 percent per year at least through 2035. The demand for freight rail services is projected to increase by a total of 73 percent based on tons and through 2035, assuming continued investment in the rail system to handle growth. Despite this, the rail share of national freight shipments is shrinking slightly. By 2035 rail's share of total freight tonnage could decline from 13.3 percent to 12.9 percent and rail's share of value could decline from 4.2 percent to 2.9 percent.¹ Exhibit 4A-6 shows freight modal distribution in 2035.

¹ All forecasts in this section were developed by Global Insight and were obtained from the AASHTO *Freight Bottom Line Report*, 2006.

Exhibit 4A-5: U.S. Shipments by Mode – 2006 and 2035 (Millions of Tons)

Mode	2006				2035			
	Total	Domestic	Exports ³	Imports ³	Total	Domestic	Exports ³	Imports ³
Total	20,974	18,985	620	1,369	(R) 37,212	33,668	(R) 1,112	(R) 2,432
Truck	12,659	12,389	169	101	22,814	22,231	262	320
Rail	2,040	1,905	41	95	3,525	3,292	57	176
Water	688	582	48	58	1,041	874	114	54
Air, air & truck	15	5	4	6	(R) 61	10	(R) 13	(R) 38
Intermodal¹	1,503	194	353	956	2,598	334	660	1,604
Pipeline & unknown²	4,068	3,909	6	153	7,172	6,926	5	240

Key: R = revised

¹ Intermodal includes U.S. Postal Service and courier shipments and all intermodal combinations, except air and truck.

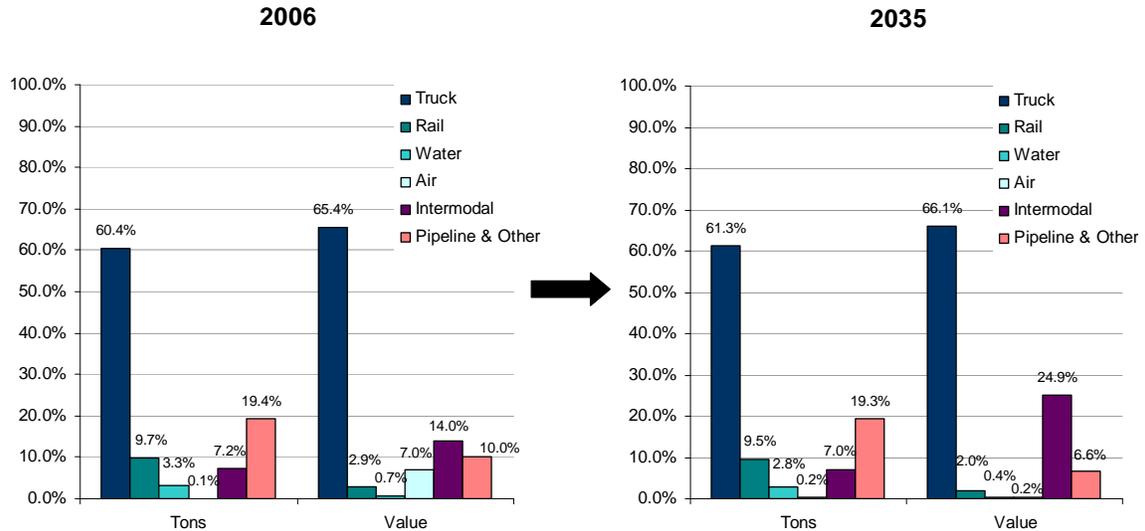
² Pipeline and unknown shipments are combined because data on region-to-region flows by pipeline are statistically uncertain.

³ Data do not include imports and exports that pass through the U.S. from a foreign origin to a foreign destination by any mode.

Note: Numbers may not add to total due to rounding.

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, Version 2.2, 2007.

Exhibit 4A-6: Freight Tons, Value, and Ton-Miles by Mode, 2006 and 2035



Source: USDOT FHWA Freight Analysis Framework, 2007

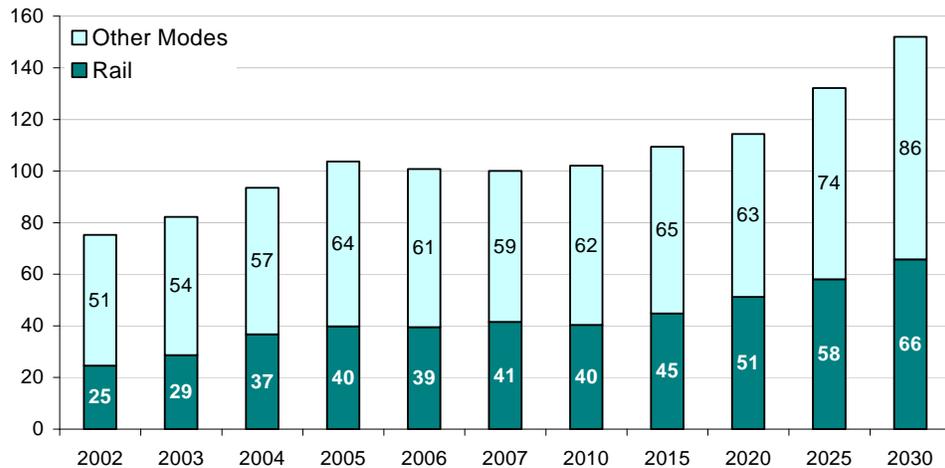
WSDOT/WPPA: 2009 Washington State Marine Cargo Forecast

In 2009 the WPPA and WSDOT jointly conducted a 5-year update of the 2004 Marine Cargo Forecast. These two organizations have been providing joint cargo forecasts since 1985. This report fulfills statutory requirements. The purpose is to assess the expected flow of waterborne cargo through the state's port system and to evaluate the distribution of cargo through the rest of the state's transportation network. The current report is a 20-year forecast of trade (2008 to 2030) moving through the state by water, rail, roads, and pipelines. It forecasts future demands not limited by the rail infrastructure capacity.

The approach used for this forecast is based on historic data trends and growth factor analysis of anticipated future changes. With the assistance of the technical advisory group, the BST consultants developed growth factors to project the growths. Many macro factors available at the forecast time were analyzed.

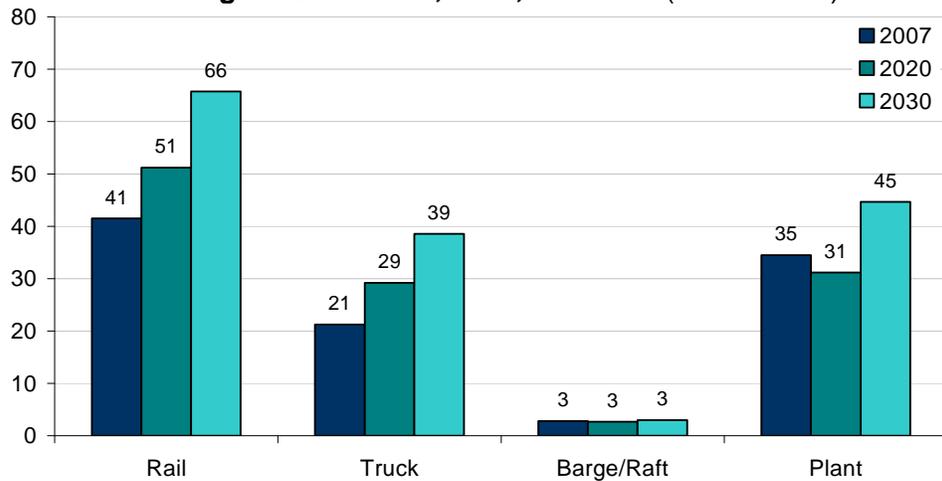
The Marine Cargo report found that rail freight is likely to play an increasingly important role in marine cargo movement. As Exhibit 4A-7 and Exhibit 4A-8 demonstrate, in the future rail freight may account for a larger share of marine cargo movement due to a higher growth rate than other modes over the forecast period.

**Exhibit 4A-7: Marine Cargo Trends – Rail vs. Other Modes
2002 to 2030 (Million Tons)**



Source: WPPA/WSDOT Marine Cargo Forecast 2009

**Exhibit 4A-8: Marine Cargo Port Modal Distribution
Washington State 2007, 2020, and 2030 (Million Tons)**



Source: WPPA/WSDOT Marine Cargo Forecast 2009

There are three factors that drive fast marine cargo growth. First, U.S. consumption increases as population and living standards increase. Second, economic globalization makes countries more specialized in production to achieve efficiency. As a result of this globalization, exports and imports increase dramatically. Last, containerization of transportation industry drives more intermodal traffic that demands rail services.

However, the recent economic recession slowed down this growth and is likely to have impacts on long-term growth potential. Economists are debating the long-term effect of this recession and many of them expect a slower growth for the next 20 years. Therefore, forecast results presented in this section are likely to be optimistic, given that recent recession data have not been integrated into the forecast processes. This plan will be updated as the new data and forecast results become available.

AASHTO: *Freight Demand and Logistic Bottom Line Report (Draft), 2006*

This study was done by Cambridge Systematics and freight demand forecasts were conducted by Global Insight. The forecasts for each mode are driven by the growth in the commodities that they handle. Growth in freight demand, combined with forecast growth in passenger movement, will contribute to increased congestion and reduced performance of the nation’s transportation system. However, the impacts on each mode will be different.

Rail market share also is shrinking because of its pace of investment. The industry is purposefully operating near capacity because of its capital intensity, and it is using demand management as well as investment to

respond to traffic volumes. This means low to higher profitability as business is being turned away to make room for more profitable business. Railroads, like all private industry, will continue to make capital decisions based on private financial returns, and public benefits will be just an incidental part of the decision, unless public capital plays a role. Demand for rail transportation is driven by the commodity markets it serves, as well as by carrier performance. Almost three-quarters of the current rail tonnage and revenue come from four market groups: coal, farm and food products, chemicals and petroleum, and the intermodal business (listing them in order of tonnage size). Some 40 percent of the physical volume is in coal alone, but the revenue picture is different and more balanced: intermodal and coal each are about 20 percent of the traffic (with intermodal somewhat the larger), while the farm and food group and the chemicals and petroleum group are about 15 percent each. Roughly 60 percent of all new rail tonnage is attributable to coal and intermodal, and although the top four markets remain the same, by 2035 intermodal should be second only to coal in terms of physical volume, and will be substantially the most important source of rail revenue. The intermodal business is projected to maintain a 3.8 percent compound annual growth rate over the next three decades, causing it to more than triple in size, primarily because of its role in carrying containerized imports for the globalizing economy. Traffic in transportation equipment also grows at an above-average pace, expanding by 2.6 percent per year and more than doubling in volume by 2035. This business is chiefly automotive products, for which rail offers a very successful service that should be able to keep abreast of an evolving market in the years ahead. Rail services fall into three distinct categories: bulk, general merchandise, and intermodal.

Bulk services are dedicated unit trains hauling a single bulk commodity, such as coal or grain. Intermodal services, as defined by the rail industry, are trains hauling international and domestic containers and trailers. All other rail freight, such as chemicals, forest products, and automobiles move as general merchandise. The long-term prospects for selected rail commodities through the year 2035 are:²

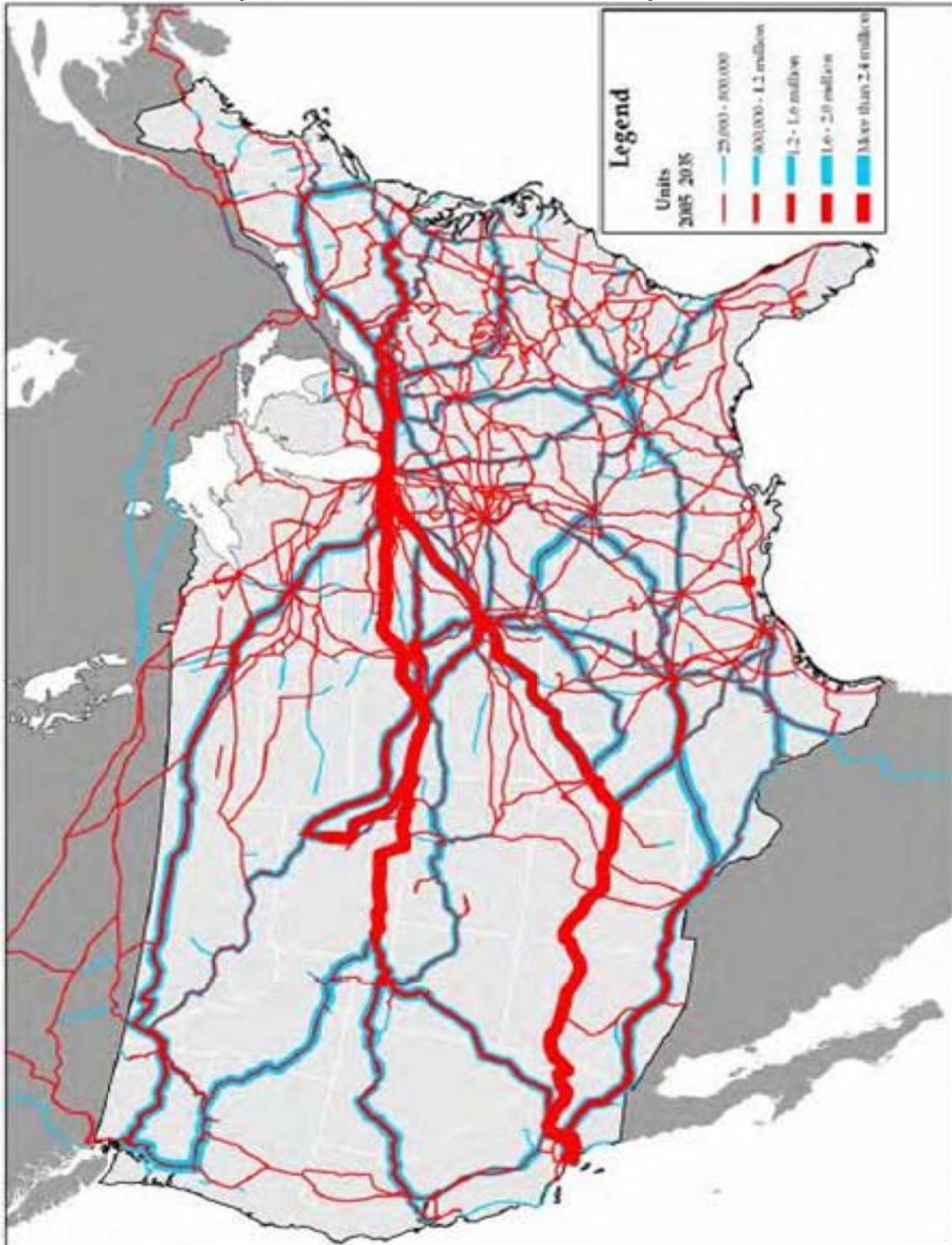
- **Coal** – Rail should remain its primary mode of transport, with a 62 percent cumulative growth in rail tonnage by 2035.
- **Farm and Food Products** – Modest growth of slightly less than 1 percent per year, with cumulative growth in 2035 projected to be 51 percent larger than today.
- **Chemical and Petroleum** – Slow growth of less than 1 percent per year and accumulating to a 27 percent increase by 2035.

² Forecasts developed by Global Insight and obtained from the *AASHTO Freight Bottom Line Report*, 2006.

- **Lumber and Forest Products** – Slow growth around or just above 1 percent per year, and a total increase in rail shipments of 40 percent to 49 percent by 2035.
- **Transportation Equipment** – Solid growth of 123 percent in tonnage through 2035.
- **Intermodal** – Prospects for rail intermodal business are very robust, with tonnage volumes rising 213 percent by 2035.

Exhibit 4A-9 demonstrates the projected growth demand using FAF data for rail in the U.S. between 2005 and 2035. Looking at the state, it can be observed that units moved on mainline railroads increase multifold to the 10 to 20 million unit designation. More capacity will have to be developed in our rail network in the state to meet this forecasted demand. This topic is further explored in Chapter 4.

Exhibit 4A-9: Comparison of Total Rail Flow Railcars per Year – 2005 and 2035



Appendix 5-A: Washington Historical Rail Abandonments

Washington Historical Rail Abandonments		
Year	Miles	Segments
1953	9.35	1
1964	0.06	1
1966	1.80	1
1969	32.58	3
1970	9.72	2
1971	30.79	3
1972	61.65	10
1974	79.22	3
1976	15.54	2
1977	21.51	4
1978	76.93	5
1979	81.28	3
1980	458.26	15
1981	44.89	4
1982	38.10	5
1983	107.77	9
1984	179.54	17
1985	147.74	12
1986	104.41	9
1987	72.66	3
1988	12.37	2
1989	130.00	1
1990	37.38	1
1991	75.28	3
1992	94.43	2
1993	132.13	6
1994	3.57	1
1995	-104.65	1
1996	11.20	1
1997	1.18	1
1998	12.45	1
2003	0.41	2
2004	18.14	4
2005	0.80	1
2006	32.11	4
2007	1.06	2
2008	12.55	1
2009	5.15	3



Appendix 5-B: Port Access Projects

Port Access Points

The reduction of bottlenecks at port access points is very important to keep the rail systems flowing. As a result, rail connectivity issues for the ports and capacity issues on the Interstate 5 (I-5) corridor are necessarily tied. Along the corridor there are five main areas where mainline capacity needs and connectivity issues intersect:

1. Vancouver, Washington (WA).
2. Kalama to Longview.
3. Centralia.
4. Tacoma.
5. Seattle.

Vancouver (WA)

Vancouver (WA) is a major point of congestion in Washington State's (state) rail system for several reasons:

- The I-5 corridor ties to the Columbia River Gorge rail corridor (Vancouver to Pasco) in Vancouver.
- Port of Vancouver rail traffic moves through the area, and the BNSF Railway (BNSF) operates a yard in Vancouver.
- East/west traffic crosses north/south traffic at-grade, while local traffic moving at slow speeds consumes mainline capacity, slowing the more than 100 trains that pass through the Vancouver Rail Yard every day.

Two projects are planned or under construction to alleviate these conflicts. The first of these projects is the Vancouver Bypass. The Vancouver Bypass will provide a new mainline track around the Vancouver Yard that allows through trains to avoid moving through the yard. It also provides a grade separation between West 39th Street and the yard, improving vehicle and pedestrian safety. Construction of the siding tracks along the west side of the rail yard began in January 2009, and construction of the 39th Street Bridge began in May 2009, anticipated to be completed by mid-2011. Full funding for the remaining rail elements of the plan is not yet in place.

The Port of Vancouver Freight Access Project would separate port traffic from mainline traffic by grade-separating the primary route into the port. This would reduce the number of trains crossing the mainlines at grade. With port-related traffic exiting the Columbia River Gorge route farther

east, the project would also improve flow through the Vancouver Terminal area. Finally, a new configuration of yard tracks and leads within the port will increase the ability of the facility to handle additional and longer trains.

Kalama and Longview

In the 10-mile stretch between Kalama and Longview, local traffic consumes mainline capacity in two ways. First, grain trains exiting or entering the mainlines at Kalama must move relatively slow on or off the main, which delays through traffic moving along the mainline. Second, local operations working from the Longview Junction rail yard must make some moves on the mainline, and these also move relatively slow. The plan to alleviate the problems in this area involves construction of a third mainline between Kalama and Longview. Construction is planned to begin in the 2013-2015 biennium and to be completed by mid-2017.

Centralia

At Centralia the short-line railroad serving the Port of Grays Harbor, Puget Sound and Pacific Railroad (PSAP), branches off of the BNSF I-5 corridor mainline. The Tacoma Rail Mountain Division (TRMW) line parallels the I-5 corridor mainline through Centralia, crossing the PSAP line at Blakeslee Junction. The TRMW and PSAP/Centralia project will reconfigure Blakeslee Junction to provide TRMW access on the PSAP between Blakeslee Junction and the BNSF mainline, and will reconfigure and upgrade the PSAP line between Blakeslee Junction and the mainline. Once complete, the TRMW line through downtown Centralia will be removed. Further phases of the project will add rail capacity in Centralia, a second connection between PSAP and TRMW in Grand Mound, and additional storage track. Funding has not yet been secured for the full project. Only partial funding for the Blakeslee Junction to mainline is currently in place.

Tacoma

In Tacoma, train movements for BNSF and the Union Pacific Railroad (UP) between the mainlines, yards, and port terminals are somewhat inefficient. Two proposals to mitigate this have been considered in the past. The first is construction of a new rail bridge linking Bullfrog Junction on the Tideflats to the mainlines at Reservation Interlocking. The second is implementation by BNSF and UP of co-production¹ between Tacoma and Tukwila. Under the co-production proposal, UP port traffic to and from the south would use the BNSF line to connect through Bullfrog Junction, while BNSF port traffic to and from the south

¹ Co-production is where two railroads share the same track.

would use the UP connection at Reservation Interlocking, and would also use the UP mainline between Tukwila and Reservation Interlocking. To this point, the railroads have not agreed to such an arrangement, although dialog has taken place off and on over the last few years.

Seattle

In Seattle, neither the BNSF nor the UP has a direct route between the mainlines and on-dock intermodal facilities. BNSF international container traffic first moves through the Seattle International Gateway/Stacy Yard, which increases transit time. The UP line to the on-dock facilities is essentially a switching lead that extends through the Argo Yard, which significantly impacts operations at Argo. In addition, intermodal trains cross East Marginal Way at-grade, creating long roadway vehicle delays.

One project designed to ease part of this problem is the East Marginal Way Grade Separation. This project will construct an overpass that routes vehicle traffic up and over railroad tracks, eliminating delays on East Marginal Way caused by trains crossing at grade. Another concept for improving rail access to Port of Seattle facilities is the Duwamish Rail Corridor, which would essentially create a double-track connection between the UP Argo Interlocking and the Harbor Island line using one UP yard track and a BNSF track. However, this project has not moved beyond initial discussions.

Other Access Issues

There are two additional areas (Everett and Bellingham) along the I-5 rail corridor that may need improvements in the future and one 5-phase project in Pasco that is currently underway.

Everett

In Everett, rail access is not currently an issue. The single-track Everett Tunnel, which is located through Everett on the mainline south of the convergence of the Stevens Pass mainline and the mainline to Blaine, is handling an increasing number of passenger trains. The increase of passenger traffic impacts freight capacity through the tunnel. A solution to this conflict is the proposed Bayside Bypass that would extend a line from Delta Junction down the Bayside industrial track and connect back into the Seattle mainline at Everett Junction. In the future the BNSF may construct the Bayside Bypass route, but this project is unlikely to cause access problems to port properties.

Bellingham

In Bellingham, the city and Port of Bellingham are developing plans to convert the former Georgia Pacific industrial site into a mixed use waterfront development. As part of this project, a sharp curve in the BNSF mainline track near the site will be removed and the tracks moved further to the east. The relocated tracks will allow passenger and freight trains to travel at a slightly higher speed through this area.

Port of Pasco Projects

In Pasco, the Port of Pasco is making a series of improvements to the network of railroad tracks that serve the Big Pasco Industrial Center. These improvements include upgrading older track to handle heavier and longer trains, adding container terminal tracks along the Columbia River, improving road/rail crossings, and a second connection to the BNSF mainline. Three of five phases have been completed, with Phase 4 slated for construction to start in late 2009.



Appendix 5-C: Inland Port Concepts

Rail access is a significant element of port competitiveness strategy. By providing an inland port service, a seaport (in theory) can make intermodal rail service available to a broader range of customers. If priced sufficiently low, the inland port service can offer cost savings to container shippers and thereby increase the port's competitiveness.

Inland Ports

Inland ports have become an increasingly popular concept as the drive for transportation efficiency continues. Inland ports are perceived to reduce congestion, improve transit times and reliability, while at the same time decreasing costs and promoting economic development.

Inland ports have several dimensions. In the narrowest sense, an inland port is an inland container transfer facility that performs many of the cargo processing functions that are performed at seaports, including customs clearance. Intermodal containers are moved from the seaport to the inland port, often in bond, thus freeing valuable land at the port for maritime activity. In effect, the inland port serves as an extension of the seaport, although at a remote location, typically close to either a key market or principal components of the highway system. If rail is used to transport the cargo to the inland port, trucks are removed from the highways and roadway congestion near the water port can be reduced. This possibility has also led to the concept of moving cargo to a remote point outside of the immediate seaport area by a rail shuttle service and then returning it to truck on less congested highways.

A broad array of multimodal facilities that support international trade can also be defined as inland ports. An often-cited example of such a development is the Alliance Texas Logistics Park, a 15,000-acre development 15 miles north of Fort Worth that includes air, rail, and highway connections, a foreign trade zone, an enterprise zone, inventory tax exemption, and business parks, distribution areas, and other facilities.

Rail Intermodal Transportation Moves

Rail intermodal transportation moves involve high-fixed costs but low-variable costs. By contrast truck transport involves high-variable costs but lower-fixed costs. Generally rail intermodal moves are considered to have a low line-haul cost per mile. The challenge in Washington State (state) is that the railroads want a haul of at least 500 miles based upon their cost structure and available rail capacity. Since the fixed costs need to be

defrayed over a large number of miles, railroads do not typically market intermodal services for short distances.

Another complication is that depending on the port, these containers may have to be drayed to and from the intermodal facilities, and these short truck movements add significant costs. Furthermore, intermodal facilities are expensive to build and to operate. The cost of building a small starter-size facility is estimated to be around \$25 million and one that would handle a significant volume is estimated at \$70 to \$80 million. In addition, if these terminals are operated as a shuttle service, rail intermodal equipment may have to be acquired, since it may be captive to the service.

Status

Due to the cost versus delivery time equation, the inland port concept has not come to fruition in many states, especially in Washington State. There have been attempts at the concept in both Quincy and Maytown. The Quincy facility is challenged by the current cost structure of rail versus truck. The potential Maytown development got caught up in a political struggle among stakeholders.

In the future, such developments could provide the base volume to generate the level of public benefits necessary to help justify the cost of a shuttle-type rail service to and from a port. The feasibility will depend on a number of variables, including access, what facilities are actually available at a port to transfer containers to rail and inland terminals, and capital and operating cost provisions.

Studies

Multiple studies in other states have concluded that the cost premium of the truck/rail transportation was particularly high for the shorter intermodal rail moves to inland port locations close to deepwater coastal ports.

A multi-year study¹ to determine if and how inland port concepts could be applied to reduce drayage miles and generate other public benefits was conducted in southern California. This study reached similar conclusions, namely the cost would be substantial, and an operating subsidy would be required. The results of the study's cost analysis suggested it would amount to at least \$200 per container at current cost levels (2008).²

¹ The Tioga Group, Railroad Industries, Inc, and Iteris, *Inland Port Feasibility Study, Project No. 06-023, Tasks 3-5Draft Report*, prepared for the Southern California Council of Governments, June 5, 2008.

² Ibid, p.4

Inland port terminals may not be justified from direct transportation savings, but could perhaps be with the inclusion of public benefits. Benefits estimated in the study equated to a range of 5 to 70 percent of the estimated transportation cost difference depending on inland terminal location and estimated cost differential range.

Based on the analyses performed in other states, an inland terminal provides the greatest proportional share of public benefits when it is located near a large concentration of port customers. It is estimated that a starter intermodal facility requires an initial volume of 20,000 to 30,000 containers per year to be viable.

Success of Inland Ports

Under current economic conditions, trucking continues to be less costly and a quicker alternative within the state as compared to rail. It is believed that in the future this cost structure will change as fuel and environmental costs of trucking drastically increase. At that point, inland ports may develop in the state as they have in other parts of the country.

There are a number of factors that are key to the success of an inland port that need to be analyzed, as the inland ports concept is considered as a component of the transportation network in the future. Among these are:

Location

An inland port should intercept major container flows and provide easy access to rail and interstate highway networks that connect it with key markets.

Functions

The inland port should perform a range of functions including intermodal transfers, storage/warehousing, staging, inspections, parking, service, etc.

Institutional Arrangements

Arrangements must be made with rail carriers and port operators to establish the rail service, as well as the container consolidation and rail car loading at the port.

Scheduled and Reliable Service

Using the inland port cannot cause an excessive delay, either due to train scheduling, transfers, or the nature of the train service.

Costs

The capital and operating costs of an inland port must not exceed the expected benefits of the service. This does not necessarily mean that the service would operate without subsidies, only that the subsidies should not exceed the public benefit of the facility.



Appendix 6: WSDOT Freight Partnerships

The Washington State Department of Transportation (WSDOT) works in partnership with a variety of freight sectors.¹ Below is a list of WSDOT's freight partners:

- AASHTO Freight Transportation Network
- Amtrak
- Commercial Vehicle Information Systems and Networks
- Federal Highway Administration
- Federal Motor Carrier Safety Administration
- Federal Railroad Administration
- Freight Action Strategy Corridor
- Freight Mobility Strategic Investment Board
- International Mobility & Trade Corridor
- Puget Sound Maritime Air Forum
- TransNow (regional university transportation center administered by USDOT)
- Transportation Improvement Board
- USACE Waterborne Commerce Statistics Center
- USDOT Bureau of Transportation Statistics
- USDOT Hazardous Materials
- University of Washington Global Trade, Transportation, and Logistics Studies
- University of Washington Intelligent Transportation System
- Washington Public Ports Association
- Washington State Department of Ecology (Air Quality)
- Washington State Patrol, Commercial Vehicle Division
- Washington State Transportation Research Center
- Washington State University Strategic Freight Transportation Analysis
- Washington Trucking Associations
- Washington Utilities and Transportation Commission
- West Coast Collaborative (public-private partnership to reduce diesel emissions)
- West Coast Corridor Coalition

¹ www.wsdot.wa.gov/freight/partnerships/.



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Appendix 8-A: Project List

This project list meets the current federal requirement to identify the statewide rail system need; it is not a funding list. The federal government is currently developing program requirements for future project lists, which will likely be linked to funding. The Washington State Department of Transportation (WSDOT) will respond with a development process after the next federal development occurs. WSDOT will also address emerging federal funding opportunities after information becomes available.

The project list is shown in different exhibits to better show different aspects:

- Exhibit 8A-1: Project List by Area, Location, and Organization
- Exhibit 8A-2: Project List by Location, Area, and Organization
- Exhibit 8A-3: Project List by Organization, Location, and Area
- Exhibit 8A-4: Project List by Project Types
- Exhibit 8A-5: Project List by Public Benefits
- Exhibit 8A-6: Project List by Private Benefits
- Exhibit 8A-7: Project List by Cost Estimates
- Exhibit 8A-8: Project List by Committed Funds

The areas listed in the exhibits are:

- EW – Eastern Washington
- NC – Non-Capital
- PS – Puget Sound
- SW – Statewide
- WW – Western Washington

Exhibit 8A-1: Project List by Area, Location, and Organization

Area	Location	Organization	Project Name	Estimated Project Cost	Estimated Completion
EW	Airway Heights	Spokane County	Geiger Spur Rehabilitation	\$880,000	5/1/2013
EW	Bingen	SW Washington RTPO	Bingen Point Rail Crossing	\$15,000,000	
EW	Cheney	Eastern Washington Gateway Railroad	Cheney Siding	\$580,000	2/1/2012
EW	Cheney	Union Pacific Railroad	Extend Cheney Siding	\$0	
EW	Cheney	Union Pacific Railroad	Install Centralized Train Control	\$0	
EW	Cheney	Union Pacific Railroad	Power Operate Manual Sidings	\$0	
EW	Creston	Eastern Washington Gateway Railroad	Webb Siding Extension	\$297,000	
EW	Creston	WSDOT	Lincoln Co. PDA/Creston - New Rail Spur	\$346,000	
EW	Davenport	Eastern Washington Gateway Railroad	CW Branch Rail Renewal	\$64,860,000	10/1/2018
EW	Ellensburg	BNSF Railway	Ellensburg-Lind Corridor Reactivation	\$0	
EW	Ephrata	WSDOT	Port of Ephrata/Ephrata Spur Rehab Phase II	\$363,000	1/1/2010
EW	Kennewick	BNSF Railway	Vista Siding Extension	\$0	
EW	Moses Lake	Columbia Basin Railroad	Bridge upgrades for 286K	\$0	1/1/2016
EW	Moses Lake	WSDOT	Port of Moses Lake/Northern Columbia Basin - Railroad Engineering and Environmental	\$29,650,000	6/30/2013
EW	Newport	Port of Pend Oreille dba Pend Oreille Valley Railroad	Tacoma Creek Bridge	\$125,000	7/31/2010
EW	Othello	Port of Royal Slope	Royal Rail Line Rehabilitation Project	\$1,750,000	
EW	Pasco	BNSF Railway	Pasco Bridge Span Replacement	\$0	
EW	Pasco	Port of Pasco	BPIC Intermodal Hub Rail Development, Phase 4 and 5	\$3,100,000	
EW	Quincy	Port of Quincy	Port of Quincy Rail Loop	\$0	
EW	Reardon	WSDOT	CW Line/Lincoln County - Grade Crossing Rehab	\$371,000	10/31/2010
EW	Richland	Richland	SR240 & SR224 Interchange & Grade Crossing	\$9,300,000	
EW	Spokane	Spokane	SR27-Pines Rd BNSF Grade Separation	\$11,720,000	
EW	Spokane	Spokane County	Park Rd BNSF Grade Separation	\$32,382,000	

Area	Location	Organization	Project Name	Estimated Project Cost	Estimated Completion
EW	Spokane	City of Spokane	Havana St. - BNSF Crossing	\$26,700,000	10/1/2011
EW	Spokane	WSDOT	Palouse River and Coulee City Railroad - Rail Authority-Sponsored Rehab	\$8,600,000	6/1/2011
EW	Spokane	WSDOT	Geiger - New Transloader	\$4,400,000	1/1/2014
EW	Spokane, Whitman, Lincoln and Grant Counties	WSDOT	PCC Rail System Rehab	\$100,000,000	
EW	Stampede Pass	BNSF Railway	Ellensburg-Lind Corridor Reactivation	\$0	
EW	Stampede Pass	BNSF Railway	Stampede Pass Project	\$0	
EW	Stevenson	City of Stevenson	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901	\$505,000	7/1/2011
EW	Sunnyside	Port of Sunnyside	Port of Sunnyside	\$0	10/1/2014
EW	Walla Walla	City of Walla Walla	13th Avenue Improvements	\$2,100,000	
EW	Walla Walla	PCC Railroad	Riparia tie and surface project	\$880,000	8/1/2011
EW	Wallula	WSDOT	Port of Columbia/Wallula to Dayton - Track Rehab	\$11,000,000	10/31/2015
EW	Wenatchee	Wenatchee Valley Transportation Council	Wenatchee Hawley Street Grade Separation	\$22,000,000	11/1/2011
EW	Wishram	BNSF Railway	East Leg of Wishram Wye	\$0	
EW	Yakima	City of Yakima	Yakima Grade Separated Rail Crossing	\$42,774,000	10/1/2011
NC	Statewide	WSDOT	Statewide - Washington Produce Rail Car Pool	\$1,974,000	12/31/2014
NC	Statewide	WSDOT	Statewide - Rail Bank	\$0	
NC	Statewide	WSDOT	Statewide - Freight Rail Assistance Program	\$0	
PS	Auburn	Auburn	M St SE Grade Separation Project	\$26,230,000	
PS	Everett	City of Everett	East Everett Ave Crossing	\$16,520,000	
PS	Everett	Port of Everett	Port of Everett Existing Rail Upgrades	\$170,000	12/1/2013
PS	Everett	Port of Everett	South Terminal Freight Rail Improvements	\$770,000	6/1/2012
PS	Everett	Port of Everett	Lehigh Cement Rail Extension	\$0	
PS	Fife	Fife	Fife 70th Ave Grade Separation	\$17,500,000	
PS	Fife	Union Pacific Railroad	Fife Yard Improvements	\$0	
PS	Fife	Union Pacific Railroad	Fife Yard Improvements	\$0	

Area	Location	Organization	Project Name	Estimated Project Cost	Estimated Completion
PS	Kent	City of Kent	Kent S 212th St Grade Separations	\$83,170,000	10/1/2015
PS	Kent	City of Kent	Kent S 228th St Corridor Project - Phases II & III Grade Separations	\$45,600,000	7/1/2012
PS	Kent	City of Kent	Kent Willis St Grade Separations	\$81,700,000	6/1/2016
PS	Kent	Union Pacific Railroad	Kent Siding Extension	\$0	
PS	Puyallup	City of Puyallup	Puyallup Shaw Road Extension	\$24,600,000	8/31/2010
PS	Puyallup	Pierce County	Puyallup N Canyon Rd Ext-BNSF Overcrossing	\$25,000,000	
PS	Renton	City of Renton	Renton Strander Blvd-SW 27th St Connection	\$12,320,000	
PS	Seattle	Ballard Terminal Railroad	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL	\$2,000,000	
PS	Seattle	Ballard Terminal Railroad	Re-rail 4.5 miles of mainline track on the MSN	\$4,500,000	1/1/2010
PS	Seattle	BNSF Railway	BNSF Seattle PNW Shop Projects	\$0	
PS	Seattle	BNSF Railway	Ballard Bridge Moveable Span Replacement	\$0	
PS	Seattle	BNSF Railway	South Seattle Domestic Intermodal Facility Improvements	\$0	
PS	Seattle	BNSF Railway	Bullfrog Junction Improvements	\$0	
PS	Seattle	City of Seattle	South Lander Street Grade Separation	\$152,000,000	On hold
PS	Seattle	Port of Seattle	Duwamish Corridor	\$12,000,000	
PS	Seattle	Port of Seattle	East Marginal Way Grade Separation	\$49,000,000	6/1/2011
PS	Seattle	WSDOT	SR519 Intermodal Access Project (Phase 2)	\$0	
PS	Tacoma	Port of Tacoma	Lincoln Avenue Grade Separation	\$53,200,000	4/1/2011
PS	Tacoma	Tacoma Rail	Bridge Rehabilitation	\$0	
PS	Tacoma	WSDOT	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion	\$1,570,000	6/30/2011
PS	Tacoma	WSDOT	Tacoma Rail/Tacoma - New Refinery Spur	\$825,000	4/1/2011
SW	Statewide	BNSF Railway	BNSF Positive Train Control Improvements	\$0	
SW	Statewide	BNSF Railway	BNSF Siding Extensions and Double Track Improvements	\$0	
WW	Aberdeen	Grays Harbor COG	Rail Car Storage East of Aberdeen	\$4,300,000	
WW	Aberdeen	Grays Harbor COG	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail	\$15,000,000	
WW	Aberdeen	Port of Grays Harbor	Port Grays Harbor Terminal 2 Grain Storage Facility	\$69,000,000	6/30/2011
WW	Aberdeen	Port of Grays Harbor	Port of Grays Harbor Terminal 4 Rail Upgrade	\$8,000,000	
WW	Battle Ground	WSDOT	Clark County-Owned Railroad/Vancouver - Track Rehab	\$403,000	4/1/2011

Area	Location	Organization	Project Name	Estimated Project Cost	Estimated Completion
WW	Battle Ground	WSDOT	Clark County/Chelatchie Prairie Railroad/Battle Ground to Vancouver - Track Rehab	\$1,000,000	4/1/2011
WW	Battleground	Clark County	Chelatchie Prairie railroad rehabilitation - Phase 1	\$23,000,000	9/1/2011
WW	Bellingham	Port of Bellingham	Bellingham Shipping Terminal Rail Spur Replacement	\$2,000,000	
WW	Bellingham	WSDOT	Bellingham - Waterfront Restoration	\$44,602,000	7/2/2010
WW	Bremerton	US Navy	Repair Railroad Bridges	\$2,500,000	10/1/2013
WW	Burlington	City of Burlington	BNSF Skagit River Bridge Replacment for Flood Risk Reduction	\$59,800,000	9/1/2014
WW	Centralia	BNSF Railway	Centraillia Steam Plant Switch Upgrade	\$0	
WW	Centralia	WSDOT	Tacoma Rail and Puget Sound and Pacific Railroad/Centralia - Reconfigure Rail	\$17,500,000	6/30/2021
WW	Centralia	WSDOT	Tacoma Rail and Puget Sound and Pacific Railroad/Centralia - Reconfigure Rail Phase 1B	\$9,500,000	6/30/2021
WW	Chehalis	Port of Chehalis	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	\$2,650,000	1/1/2012
WW	Chehalis	Port of Chehalis	Rail spur & reload for styrofoam recycler	\$1,075,000	9/1/2010
WW	Deming	Nooksack Indian Tribe	Expansion on First Street	\$250,000	
WW	Frederickson	WSDOT	Tacoma Rail/Frederickson to Morton - Track Rehab	\$1,485,000	12/31/2011
WW	Kelso/Longview	Cowlitz-Wahkiakum COG	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	\$117,000,000	
WW	Kelso/Longview	Port of Kalama	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing	\$0	3/1/2011
WW	Kelso/Longview	Port of Kalama	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation	\$0	12/15/2010
WW	Kelso/Longview	Port of Kalama	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks	\$47,000,000	4/1/2010
WW	Kelso/Longview	Port of Kalama	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road	\$28,000,000	9/1/2010
WW	Longview	BNSF Railway	Interstate Yard	\$0	
WW	Longview	BNSF Railway	Longview Junction Bypass	\$0	
WW	Longview	Cowlitz-Wahkiakum COG	SR 432/433 Grade Separation & Rail Improvements	\$180,000,000	11/1/2011
WW	Longview	Port of Longview	Port of Longview Rail Loop Construction	\$900,000	7/1/2011
WW	Longview	Swanson Bark & Wood Products	Swanson Bark Rail Spur	\$2,385,000	1/31/2010
WW	Mt Vernon	BNSF Railway	Mt Vernon Bridge Replacement	\$0	
WW	Olympia	Port of Olympia	Port of Olympia and East Olympia Freight Rail Enhancement Project	\$40,000,000	12/31/2014

Area	Location	Organization	Project Name	Estimated Project Cost	Estimated Completion
WW	Ridgefield	Port of Ridgefield	Ridgefield Rail Overpass	\$12,500,000	6/30/2014
WW	Roy/Yelm	WSDOT	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur	\$1,928,000	6/30/2011
WW	Roy/Yelm	WSDOT	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab	\$755,000	4/1/2011
WW	Sumner	Union Pacific Railroad	Extend Sumner Siding	\$0	
WW	Vancouver	Port of Vancouver	West Vancouver Freight Access Schedule 2-4	\$137,500,000	5/1/2010
WW	Vancouver-Clark County	Portland Vancouver Junction Railroad	Clark County Railroad Rehab	\$29,000,000	12/1/2011
WW	Washougal	Port of Camas-Washougal	Rail Enhancement Project	\$1,000,000	
WW	Woodland	Cowlitz-Wahkiakum COG	Scott Avenue Railroad Overcrossing/Grade Separation	\$62,000,000	2/1/2012

Exhibit 8A-2: Project List by Location, Area, and Organization

Location	Area	Organization	Project Name	Estimated Project Cost	Estimated Completion
Aberdeen	WW	Grays Harbor COG	Rail Car Storage East of Aberdeen	\$4,300,000	
Aberdeen	WW	Grays Harbor COG	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail	\$15,000,000	
Aberdeen	WW	Port of Grays Harbor	Port Grays Harbor Terminal 2 Grain Storage Facility	\$69,000,000	6/30/2011
Aberdeen	WW	Port of Grays Harbor	Port of Grays Harbor Terminal 4 Rail Upgrade	\$8,000,000	
Airway Heights	EW	Spokane County	Geiger Spur Rehabilitation	\$880,000	5/1/2013
Auburn	PS	Auburn	M St SE Grade Separation Project	\$26,230,000	
Battle Ground	WW	WSDOT	Clark County-Owned Railroad/Vancouver - Track Rehab	\$403,000	4/1/2011
Battle Ground	WW	WSDOT	Clark County/Chelatchie Prairie Railroad/Battle Ground to Vancouver - Track Rehab	\$1,000,000	4/1/2011
Battleground	WW	Clark County	Chelatchie Prairie railroad rehabilitation - Phase 1	\$23,000,000	9/1/2011
Bellingham	WW	Port of Bellingham	Bellingham Shipping Terminal Rail Spur Replacement	\$2,000,000	
Bellingham	WW	WSDOT	Bellingham - Waterfront Restoration	\$44,602,000	7/2/2010
Bingen	EW	SW Washington RTPO	Bingen Point Rail Crossing	\$15,000,000	
Bremerton	WW	US Navy	Repair Railroad Bridges	\$2,500,000	10/1/2013
Burlington	WW	City of Burlington	BNSF Skagit River Bridge Replacment for Flood Risk Reduction	\$59,800,000	9/1/2014
Centralia	WW	BNSF Railway	Centrailia Steam Plant Switch Upgrade	\$0	
Centralia	WW	WSDOT	Tacoma Rail and Puget Sound and Pacific Railroad/Centralia - Reconfigure Rail	\$17,500,000	6/30/2021
Centralia	WW	WSDOT	Tacoma Rail and Puget Sound and Pacific Railroad/Centralia - Reconfigure Rail Phase 1B	\$9,500,000	6/30/2021
Chehalis	WW	Port of Chehalis	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	\$2,650,000	1/1/2012
Chehalis	WW	Port of Chehalis	Rail spur & reload for styrofoam recycler	\$1,075,000	9/1/2010
Cheney	EW	Eastern Washington Gateway Railroad	Cheney Siding	\$580,000	2/1/2012
Cheney	EW	Union Pacific Railroad	Extend Cheney Siding	\$0	
Cheney	EW	Union Pacific Railroad	Install Centralized Train Control	\$0	
Cheney	EW	Union Pacific Railroad	Power Operate Manual Sidings	\$0	

Location	Area	Organization	Project Name	Estimated Project Cost	Estimated Completion
Creston	EW	Eastern Washington Gateway Railroad	Webb Siding Extension	\$297,000	
Creston	EW	WSDOT	Lincoln Co. PDA/Creston - New Rail Spur	\$346,000	
Davenport	EW	Eastern Washington Gateway Railroad	CW Branch Rail Renewal	\$64,860,000	10/1/2018
Deming	WW	Nooksack Indian Tribe	Expansion on First Street	\$250,000	
Ellensburg	EW	BNSF Railway	Ellensburg-Lind Corridor Reactivation	\$0	
Ephrata	EW	WSDOT	Port of Ephrata/Ephrata Spur Rehab Phase II	\$363,000	1/1/2010
Everett	PS	City of Everett	East Everett Ave Crossing	\$16,520,000	
Everett	PS	Port of Everett	Port of Everett Existing Rail Upgrades	\$170,000	12/1/2013
Everett	PS	Port of Everett	South Terminal Freight Rail Improvements	\$770,000	6/1/2012
Everett	PS	Port of Everett	Lehigh Cement Rail Extension	\$0	
Fife	PS	Fife	Fife 70th Ave Grade Separation	\$17,500,000	
Fife	PS	Union Pacific Railroad	Fife Yard Improvements	\$0	
Fife	PS	Union Pacific Railroad	Fife Yard Improvements	\$0	
Frederickson	WW	WSDOT	Tacoma Rail/Frederickson to Morton - Track Rehab	\$1,485,000	12/31/2011
Kelso/Longview	WW	Cowlitz-Wahkiakum COG	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	\$117,000,000	
Kelso/Longview	WW	Port of Kalama	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing	\$0	3/1/2011
Kelso/Longview	WW	Port of Kalama	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation	\$0	12/15/2010
Kelso/Longview	WW	Port of Kalama	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks	\$47,000,000	4/1/2010
Kelso/Longview	WW	Port of Kalama	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road	\$28,000,000	9/1/2010
Kennewick	EW	BNSF Railway	Vista Siding Extension	\$0	
Kent	PS	City of Kent	Kent S 212th St Grade Separations	\$83,170,000	10/1/2015
Kent	PS	City of Kent	Kent S 228th St Corridor Project - Phases II & III Grade Separations	\$45,600,000	7/1/2012
Kent	PS	City of Kent	Kent Willis St Grade Separations	\$81,700,000	6/1/2016
Kent	PS	Union Pacific Railroad	Kent Siding Extension	\$0	

Location	Area	Organization	Project Name	Estimated Project Cost	Estimated Completion
Longview	WW	BNSF Railway	Interstate Yard	\$0	
Longview	WW	BNSF Railway	Longview Junction Bypass	\$0	
Longview	WW	Cowlitz-Wahkiakum COG	SR 432/433 Grade Separation & Rail Improvements	\$180,000,000	11/1/2011
Longview	WW	Port of Longview	Port of Longview Rail Loop Construction	\$900,000	7/1/2011
Longview	WW	Swanson Bark & Wood Products	Swanson Bark Rail Spur	\$2,385,000	1/31/2010
Moses Lake	EW	Columbia Basin Railroad	Bridge upgrades for 286K	\$0	1/1/2016
Moses Lake	EW	WSDOT	Port of Moses Lake/Northern Columbia Basin - Railroad Engineering and Environmental	\$29,650,000	6/30/2013
Mt Vernon	WW	BNSF Railway	Mt Vernon Bridge Replacement	\$0	
Newport	EW	Port of Pend Oreille dba Pend Oreille Valley Railroad	Tacoma Creek Bridge	\$125,000	7/31/2010
Olympia	WW	Port of Olympia	Port of Olympia and East Olympia Freight Rail Enhancement Project	\$40,000,000	12/31/2014
Othello	EW	Port of Royal Slope	Royal Rail Line Rehabilitation Project	\$1,750,000	
Pasco	EW	BNSF Railway	Pasco Bridge Span Replacement	\$0	
Pasco	EW	Port of Pasco	BPIC Intermodal Hub Rail Development, Phase 4 and 5	\$3,100,000	
Puyallup	PS	City of Puyallup	Puyallup Shaw Road Extension	\$24,600,000	8/31/2010
Puyallup	SW	Pierce County	Puyallup N Canyon Rd Ext-BNSF Overcrossing	\$25,000,000	
Quincy	SW	Port of Quincy	Port of Quincy Rail Loop	\$0	
Reardon	EW	WSDOT	CW Line/Lincoln County - Grade Crossing Rehab	\$371,000	10/31/2010
Renton	PS	City of Renton	Renton Strander Blvd-SW 27th St Connection	\$12,320,000	
Richland	EW	Richland	SR240 & SR224 Interchange & Grade Crossing	\$9,300,000	
Ridgefield	WW	Port of Ridgefield	Ridgefield Rail Overpass	\$12,500,000	6/30/2014
Roy/Yelm	WW	WSDOT	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur	\$1,928,000	6/30/2011
Roy/Yelm	WW	WSDOT	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab	\$755,000	4/1/2011
Seattle	PS	Ballard Terminal Railroad	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL	\$2,000,000	
Seattle	PS	Ballard Terminal Railroad	Re-rail 4.5 miles of mainline track on the MSN	\$4,500,000	1/1/2010
Seattle	PS	BNSF Railway	BNSF Seattle PNW Shop Projects	\$0	
Seattle	PS	BNSF Railway	Ballard Bridge Moveable Span Replacement	\$0	

Location	Area	Organization	Project Name	Estimated Project Cost	Estimated Completion
Seattle	PS	BNSF Railway	South Seattle Domestic Intermodal Facility Improvements	\$0	
Seattle	PS	BNSF Railway	Bullfrog Junction Improvements	\$0	
Seattle	PS	City of Seattle	South Lander Street Grade Separation	\$152,000,000	On hold
Seattle	PS	Port of Seattle	Duwamish Corridor	\$12,000,000	
Seattle	PS	Port of Seattle	East Marginal Way Grade Separation	\$49,000,000	6/1/2011
Seattle	PS	WSDOT	SR519 Intermodal Access Project (Phase 2)	\$0	
Spokane	EW	City of Spokane	Havana St. - BNSF Crossing	\$26,700,000	10/1/2011
Spokane	EW	Spokane	SR27-Pines Rd BNSF Grade Separation	\$11,720,000	
Spokane	EW	Spokane County	Park Rd BNSF Grade Separation	\$32,382,000	
Spokane	EW	WSDOT	Palouse River and Coulee City Railroad - Rail Authority-Sponsored Rehab	\$8,600,000	6/1/2011
Spokane	EW	WSDOT	Geiger - New Transloader	\$4,400,000	1/1/2014
Spokane, Whitman, Lincoln and Grant Counties	EW	WSDOT	PCC Rail System Rehab	\$100,000,000	
Stampede Pass	EW	BNSF Railway	Ellensburg-Lind Corridor Reactivation	\$0	
Stampede Pass	EW	BNSF Railway	Stampede Pass Project	\$0	
Statewide	NC	WSDOT	Statewide - Washington Produce Rail Car Pool	\$1,974,000	12/31/2014
Statewide	NC	WSDOT	Statewide - Freight Rail Investment Bank	\$0	
Statewide	NC	WSDOT	Statewide - Emergent Freight Rail Assistance Project	\$0	
Statewide	SW	BNSF Railway	BNSF Positive Train Control Improvements	\$0	
Statewide	SW	BNSF Railway	BNSF Siding Extensions and Double Track Improvements	\$0	
Stevenson	EW	City of Stevenson	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901	\$505,000	7/1/2011
Sumner	WW	Union Pacific Railroad	Extend Sumner Siding	\$0	
Sunnyside	EW	Port of Sunnyside	Port of Sunnyside	\$0	10/1/2014
Tacoma	PS	Port of Tacoma	Lincoln Avenue Grade Separation	\$53,200,000	4/1/2011
Tacoma	PS	Tacoma Rail	Bridge Rehabilitation	\$0	
Tacoma	PS	WSDOT	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion	\$1,570,000	6/30/2011

Location	Area	Organization	Project Name	Estimated Project Cost	Estimated Completion
Tacoma	PS	WSDOT	Tacoma Rail/Tacoma - New Refinery Spur	\$825,000	4/1/2011
Vancouver	WW	Port of Vancouver	West Vancouver Freight Access Schedule 2-4	\$137,500,000	5/1/2010
Vancouver-Clark County	WW	Portland Vancouver Junction Railroad	Clark County Railroad Rehab	\$29,000,000	12/1/2011
Walla Walla	EW	City of Walla Walla	13th Avenue Improvements	\$2,100,000	
Walla Walla	EW	PCC Railroad	Riparia tie and surface project	\$880,000	8/1/2011
Walla Walla	EW	WSDOT	Port of Columbia/Walla Walla to Dayton - Track Rehab	\$11,000,000	10/31/2015
Washougal	WW	Port of Camas-Washougal	Rail Enhancement Project	\$1,000,000	
Wenatchee	EW	Wenatchee Valley Transportation Council	Wenatchee Hawley Street Grade Separation	\$22,000,000	11/1/2011
Wishram	EW	BNSF Railway	East Leg of Wishram Wye	\$0	
Woodland	WW	Cowlitz-Wahkiakum COG	Scott Avenue Railroad Overcrossing/Grade Separation	\$62,000,000	2/1/2012
Yakima	EW	City of Yakima	Yakima Grade Separated Rail Crossing	\$42,774,000	10/1/2011

Exhibit 8A-3: Project List by Organization, Location, and Area

Organization	Location	Area	Project Name	Estimated Project Cost	Estimated Completion
Auburn	Auburn	PS	M St SE Grade Separation Project	\$26,230,000	
Ballard Terminal Railroad	Seattle	PS	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL	\$2,000,000	
Ballard Terminal Railroad	Seattle	PS	Re-rail 4.5 miles of mainline track on the MSN	\$4,500,000	1/1/2010
BNSF Railway	Centralia	WW	Centralia Steam Plant Switch Upgrade	\$0	
BNSF Railway	Ellensburg	EW	Ellensburg-Lind Corridor Reactivation	\$0	
BNSF Railway	Kennewick	EW	Vista Siding Extension	\$0	
BNSF Railway	Longview	WW	Interstate Yard	\$0	
BNSF Railway	Longview	WW	Longview Junction Bypass	\$0	
BNSF Railway	Mt Vernon	WW	Mt Vernon Bridge Replacement	\$0	
BNSF Railway	Pasco	EW	Pasco Bridge Span Replacement	\$0	
BNSF Railway	Seattle	PS	BNSF Seattle PNW Shop Projects	\$0	
BNSF Railway	Seattle	PS	Ballard Bridge Moveable Span Replacement	\$0	
BNSF Railway	Seattle	PS	South Seattle Domestic Intermodal Facility Improvements	\$0	
BNSF Railway	Seattle	PS	Bullfrog Junction Improvements	\$0	
BNSF Railway	Stampede Pass	EW	Ellensburg-Lind Corridor Reactivation	\$0	
BNSF Railway	Stampede Pass	EW	Stampede Pass Project	\$0	
BNSF Railway	Statewide	SW	BNSF Positive Train Control Improvements	\$0	
BNSF Railway	Statewide	SW	BNSF Siding Extensions and Double Track Improvements	\$0	
BNSF Railway	Wishram	EW	East Leg of Wishram Wye	\$0	
City of Burlington	Burlington	WW	BNSF Skagit River Bridge Replacment for Flood Risk Reduction	\$59,800,000	9/1/2014
City of Everett	Everett	PS	East Everett Ave Crossing	\$16,520,000	
City of Kent	Kent	PS	Kent S 212th St Grade Separations	\$83,170,000	10/1/2015
City of Kent	Kent	PS	Kent S 228th St Corridor Project - Phases II & III Grade Separations	\$45,600,000	7/1/2012
City of Kent	Kent	PS	Kent Willis St Grade Separations	\$81,700,000	6/1/2016
City of Puyallup	Puyallup	PS	Puyallup Shaw Road Extension	\$24,600,000	8/31/2010
City of Renton	Renton	PS	Renton Strander Blvd-SW 27th St Connection	\$12,320,000	
City of Seattle	Seattle	PS	South Lander Street Grade Separation	\$152,000,000	
City of Spokane	Spokane	EW	Havana St. - BNSF Crossing	\$26,700,000	10/1/2011

Organization	Location	Area	Project Name	Estimated Project Cost	Estimated Completion
City of Stevenson	Stevenson	EW	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901	\$505,000	7/1/2011
City of Walla Walla	Walla Walla	EW	13th Avenue Improvements	\$2,100,000	
City of Yakima	Yakima	EW	Yakima Grade Separated Rail Crossing	\$42,774,000	10/1/2011
Clark County	Battleground	WW	Chelatchie Prairie railroad rehabilitation - Phase 1	\$23,000,000	9/1/2011
Columbia Basin Railroad	Moses Lake	EW	Bridge upgrades for 286K	\$0	1/1/2016
Cowlitz-Wahkiakum COG	Kelso/Longview	WW	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	\$117,000,000	
Cowlitz-Wahkiakum COG	Longview	WW	SR 432/433 Grade Separation & Rail Improvements	\$180,000,000	11/1/2011
Cowlitz-Wahkiakum COG	Woodland	WW	Scott Avenue Railroad Overcrossing/Grade Separation	\$62,000,000	2/1/2012
Eastern Washington Gateway Railroad	Cheney	EW	Cheney Siding	\$580,000	2/1/2012
Eastern Washington Gateway Railroad	Creston	EW	Webb Siding Extension	\$297,000	
Eastern Washington Gateway Railroad	Davenport	EW	CW Branch Rail Renewal	\$64,860,000	10/1/2018
Fife	Fife	PS	Fife 70th Ave Grade Separation	\$17,500,000	
Grays Harbor COG	Aberdeen	WW	Rail Car Storage East of Aberdeen	\$4,300,000	
Grays Harbor COG	Aberdeen	WW	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail	\$15,000,000	
Nooksack Indian Tribe	Deming	WW	Expansion on First Street	\$250,000	
PCC Railroad	Walla Walla	EW	Riparia tie and surface project	\$880,000	8/1/2011
Pierce County	Puyallup	PS	Puyallup N Canyon Rd Ext-BNSF Overcrossing	\$25,000,000	
Port of Bellingham	Bellingham	WW	Bellingham Shipping Terminal Rail Spur Replacement	\$2,000,000	
Port of Camas-Washougal	Washougal	WW	Rail Enhancement Project	\$1,000,000	
Port of Chehalis	Chehalis	WW	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	\$2,650,000	1/1/2012
Port of Chehalis	Chehalis	WW	Rail spur & reload for styrofoam recycler	\$1,075,000	9/1/2010
Port of Everett	Everett	PS	Port of Everett Existing Rail Upgrades	\$170,000	12/1/2013
Port of Everett	Everett	PS	South Terminal Freight Rail Improvements	\$770,000	6/1/2012
Port of Everett	Everett	PS	Lehigh Cement Rail Extension	\$0	

Organization	Location	Area	Project Name	Estimated Project Cost	Estimated Completion
Port of Grays Harbor	Aberdeen	WW	Port Grays Harbor Terminal 2 Grain Storage Facility	\$69,000,000	6/30/2011
Port of Grays Harbor	Aberdeen	WW	Port of Grays Harbor Terminal 4 Rail Upgrade	\$8,000,000	
Port of Kalama	Kelso/Longview	WW	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing	\$0	3/1/2011
Port of Kalama	Kelso/Longview	WW	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation	\$0	12/15/2010
Port of Kalama	Kelso/Longview	WW	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks	\$47,000,000	4/1/2010
Port of Kalama	Kelso/Longview	WW	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road	\$28,000,000	9/1/2010
Port of Longview	Longview	WW	Port of Longview Rail Loop Construction	\$900,000	7/1/2011
Port of Olympia	Olympia	WW	Port of Olympia and East Olympia Freight Rail Enhancement Project	\$40,000,000	12/31/2014
Port of Pasco	Pasco	EW	BPIC Intermodal Hub Rail Development, Phase 4 and 5	\$3,100,000	
Port of Pend Oreille dba Pend Oreille Valley Railroad	Newport	EW	Tacoma Creek Bridge	\$125,000	7/31/2010
Port of Quincy	Quincy	EW	Port of Quincy Rail Loop	\$0	
Port of Ridgefield	Ridgefield	WW	Ridgefield Rail Overpass	\$12,500,000	6/30/2014
Port of Royal Slope	Othello	EW	Royal Rail Line Rehabilitation Project	\$1,750,000	
Port of Seattle	Seattle	PS	Duwamish Corridor	\$12,000,000	
Port of Seattle	Seattle	PS	East Marginal Way Grade Separation	\$49,000,000	6/1/2011
Port of Sunnyside	Sunnyside	EW	Port of Sunnyside	\$0	10/1/2014
Port of Tacoma	Tacoma	PS	Lincoln Avenue Grade Separation	\$53,200,000	4/1/2011
Port of Vancouver	Vancouver	WW	West Vancouver Freight Access Schedule 2-4	\$137,500,000	5/1/2010
Portland Vancouver Junction Railroad	Vancouver-Clark County	WW	Clark County Railroad Rehab	\$29,000,000	12/1/2011
Richland	Richland	EW	SR240 & SR224 Interchange & Grade Crossing	\$9,300,000	
Spokane	Spokane	EW	SR27-Pines Rd BNSF Grade Separation	\$11,720,000	
Spokane County	Airway Heights	EW	Geiger Spur Rehabilitation	\$880,000	5/1/2013
Spokane County	Spokane	EW	Park Rd BNSF Grade Separation	\$32,382,000	
SW Washington RTPO	Bingen	EW	Bingen Point Rail Crossing	\$15,000,000	
Swanson Bark & Wood Products	Longview	WW	Swanson Bark Rail Spur	\$2,385,000	1/31/2010
Tacoma Rail	Tacoma	PS	Bridge Rehabilitation	\$0	

Organization	Location	Area	Project Name	Estimated Project Cost	Estimated Completion
Union Pacific Railroad	Cheney	EW	Extend Cheney Siding	\$0	
Union Pacific Railroad	Cheney	EW	Install Centralized Train Control	\$0	
Union Pacific Railroad	Cheney	EW	Power Operate Manual Sidings	\$0	
Union Pacific Railroad	Fife	PS	Fife Yard Improvements	\$0	
Union Pacific Railroad	Fife	PS	Fife Yard Improvements	\$0	
Union Pacific Railroad	Kent	PS	Kent Siding Extension	\$0	
Union Pacific Railroad	Sumner	WW	Extend Sumner Siding	\$0	
US Navy	Bremerton	WW	Repair Railroad Bridges	\$2,500,000	10/1/2013
Wenatchee Valley Transportation Council	Wenatchee	EW	Wenatchee Hawley Street Grade Separation	\$22,000,000	11/1/2011
WSDOT	Battle Ground	WW	Clark County-Owned Railroad/Vancouver - Track Rehab	\$403,000	4/1/2011
WSDOT	Battle Ground	WW	Clark County/Chelatchie Prairie Railroad/Battle Ground to Vancouver - Track Rehab	\$1,000,000	4/1/2011
WSDOT	Bellingham	WW	Bellingham - Waterfront Restoration	\$44,602,000	7/2/2010
WSDOT	Centralia	WW	Tacoma Rail and Puget Sound and Pacific Railroad/Centralia - Reconfigure Rail	\$17,500,000	6/30/2021
WSDOT	Centralia	WW	Tacoma Rail and Puget Sound and Pacific Railroad/Centralia - Reconfigure Rail Phase 1B	\$9,500,000	6/30/2021
WSDOT	Creston	EW	Lincoln Co. PDA/Creston - New Rail Spur	\$346,000	
WSDOT	Ephrata	EW	Port of Ephrata/Ephrata Spur Rehab Phase II	\$363,000	1/1/2010
WSDOT	Frederickson	WW	Tacoma Rail/Frederickson to Morton - Track Rehab	\$1,485,000	12/31/2011
WSDOT	Moses Lake	EW	Port of Moses Lake/Northern Columbia Basin - Railroad Engineering and Environmental	\$29,650,000	6/30/2013
WSDOT	Reardon	EW	CW Line/Lincoln County - Grade Crossing Rehab	\$371,000	10/31/2010
WSDOT	Roy/Yelm	WW	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur	\$1,928,000	6/30/2011
WSDOT	Roy/Yelm	WW	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab	\$755,000	4/1/2011
WSDOT	Seattle	PS	SR519 Intermodal Access Project (Phase 2)	\$0	
WSDOT	Spokane	EW	Palouse River and Coulee City Railroad - Rail Authority-Sponsored Rehab	\$8,600,000	6/1/2011
WSDOT	Spokane	EW	Geiger - New Transloader	\$4,400,000	1/1/2014

Organization	Location	Area	Project Name	Estimated Project Cost	Estimated Completion
WSDOT	Spokane, Whitman, Lincoln and Grant Counties	EW	PCC Rail System Rehab	\$100,000,000	
WSDOT	Statewide	NC	Statewide - Washington Produce Rail Car Pool	\$1,974,000	12/31/2014
WSDOT	Statewide	NC	Statewide - Rail Bank	\$0	
WSDOT	Statewide	NC	Statewide - Freight Rail Assistance Program	\$0	
WSDOT	Tacoma	PS	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion	\$1,570,000	6/30/2011
WSDOT	Tacoma	PS	Tacoma Rail/Tacoma - New Refinery Spur	\$825,000	4/1/2011
WSDOT	Wallula	EW	Port of Columbia/Wallula to Dayton - Track Rehab	\$11,000,000	10/31/2015

Exhibit 8A-4: Project List by Project Type

Area	Project Name	High-Speed Pass Rail	Mainline Capacity Expan	Port-to-Rail Access	Maint, Repair, and Rehab	Signal System	Line Upgrade or Expan	Facility Upgrade or Expan	Safety and Security	Grade Sep	Bridge Rehab or Replace
EW	13th Avenue Improvements				X					X	
EW	Bingen Point Rail Crossing								X	X	
EW	BPIC Intermodal Hub Rail Development, Phase 4 and 5			X			X	X			
EW	Bridge upgrades for 286K							X			X
EW	Cheney Siding		X				X	X	X		
EW	CW Branch Rail Renewal		X	X	X		X	X			
EW	CW Line/Lincoln County - Grade Crossing Rehab				X				X		
EW	East Leg of Wishram Wye										
EW	Ellensburg-Lind Corridor Reactivation		X		X		X			X	X
EW	Ellensburg-Lind Corridor Reactivation										
EW	Extend Cheney Siding		X								
EW	Geiger - New Transloader							X			
EW	Geiger Spur Rehabilitation		X	X	X						
EW	Havana St. - BNSF Crossing									X	
EW	Install Centralized Train Control	X				X					
EW	Lincoln Co. PDA/Creston - New Rail Spur										
EW	Palouse River and Coulee City RR - Rail Authority-Sponsored Rehab				X				X		
EW	Park Rd BNSF Grade Separation									X	
EW	Pasco Bridge Span Replacement										X
EW	PCC Rail System Rehab		X		X		X				X
EW	Port of Columbia/Wallula to Dayton - Track Rehab				X						
EW	Port of Ephrata/Ephrata Spur Rehab Phase II				X		X		X		

Area	Project Name	High-Speed Pass Rail	Mainline Capacity Expan	Port-to-Rail Access	Maint, Repair, and Rehab	Signal System	Line Upgrade or Expan	Facility Upgrade or Expan	Safety and Security	Grade Sep	Bridge Rehab or Replace
EW	Port of Moses Lake/Northern Columbia Basin - RR Engineering and Environmental			X	X		X		X		
EW	Port of Quincy Rail Loop										
EW	Port of Sunnyside										
EW	Power Operate Manual Sidings		X			X					
EW	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901					X			X		
EW	Riparia tie and surface project				X						
EW	Royal Rail Line Rehabilitation Project			X	X		X				
EW	SR240 & SR224 Interchange & Grade Crossing									X	
EW	SR27-Pines Rd BNSF Grade Separation									X	
EW	Stampede Pass Project										
EW	Tacoma Creek Bridge		X		X				X		X
EW	Vista Siding Extension		X				X				
EW	Webb Siding Extension		X				X	X			
EW	Wenatchee Hawley Street Grade Separation								X		
EW	Yakima Grade Separated Rail Crossing						X			X	
NC	Statewide - Freight Rail Assistance Program										
NC	Statewide - Rail Bank										
NC	Statewide - Washington Produce Rail Car Pool										
PS	Ballard Bridge Moveable Span Replacement										
PS	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL				X		X				

Area	Project Name	High-Speed Pass Rail	Mainline Capacity Expan	Port-to-Rail Access	Maint, Repair, and Rehab	Signal System	Line Upgrade or Expan	Facility Upgrade or Expan	Safety and Security	Grade Sep	Bridge Rehab or Replace
PS	BNSF Seattle PNW Shop Projects										
PS	Bridge Rehabilitation			X	X				X		X
PS	Bullfrog Junction Improvements										
PS	Duwamish Corridor		X	X							
PS	East Everett Ave Crossing									X	
PS	East Marginal Way Grade Separation			X					X	X	
PS	Fife 70th Ave Grade Separation									X	
PS	Fife Yard Improvements		X	X							
PS	Fife Yard Improvements		X	X							
PS	Kent S 212th St Grade Separations									X	
PS	Kent S 228th St Corridor Project - Phases II & III Grade Separations									X	
PS	Kent Siding Extension		X							X	
PS	Kent Willis St Grade Separations									X	
PS	Lehigh Cement Rail Extension			X							
PS	Lincoln Avenue Grade Separation						X		X	X	
PS	M St SE Grade Separation Project									X	
PS	Port of Everett Existing Rail Upgrades			X	X						
PS	Puyallup N Canyon Rd Ext-BNSF Overcrossing									X	
PS	Puyallup Shaw Road Extension					X			X	X	
PS	Renton Strander Blvd-SW 27th St Connection						X	X			
PS	Re-rail 4.5 miles of mainline track on the MSN				X		X				
PS	South Lander Street Grade Separation			X			X			X	
PS	South Seattle Domestic Intermodal Facility Improvements										
PS	South Terminal Freight Rail Improvements			X			X	X			

Area	Project Name	High-Speed Pass Rail	Mainline Capacity Expan	Port-to-Rail Access	Maint, Repair, and Rehab	Signal System	Line Upgrade or Expan	Facility Upgrade or Expan	Safety and Security	Grade Sep	Bridge Rehab or Replace
PS	SR519 Intermodal Access Project (Phase 2)									X	
PS	Tacoma Rail/Tacoma - New Refinery Spur			X				X			
PS	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion				X		X	X			
SW	BNSF Positive Train Control Improvements	X	X			X					
SW	BNSF Siding Extensions and Double Track Improvements	X	X				X				
WW	Bellingham - Waterfront Restoration	X					X				X
WW	Bellingham Shipping Terminal Rail Spur Replacement			X	X						
WW	BNSF Skagit River Bridge Replacment for Flood Risk Reduction							X	X		X
WW	Centraillia Steam Plant Switch Upgrade	X	X		X			X	X		
WW	Chelatchie Prairie railroad rehabilitation - Phase 1				X				X		
WW	Clark County Railroad Rehab	X	X		X	X	X	X	X		
WW	Clark County/Chelatchie Prairie RR/Battle Ground to Vancouver - Track Rehab				X						
WW	Clark County-Owned RR/Vancouver - Track Rehab				X						
WW	Expansion on First Street								X		
WW	Extend Sumner Siding		X								
WW	Interstate Yard		X	X			X				
WW	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation	X	X						X	X	
WW	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing	X	X						X		

Area	Project Name	High-Speed Pass Rail	Mainline Capacity Expan	Port-to-Rail Access	Maint, Repair, and Rehab	Signal System	Line Upgrade or Expan	Facility Upgrade or Expan	Safety and Security	Grade Sep	Bridge Rehab or Replace
WW	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks	X	X						X		
WW	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	X	X	X					X	X	
WW	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road	X	X						X		
WW	Longview Junction Bypass										
WW	Mt Vernon Bridge Replacement										
WW	Port Grays Harbor Terminal 2 Grain Storage Facility			X				X			
WW	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component			X			X	X			
WW	Port of Grays Harbor Terminal 4 Rail Upgrade			X	X		X	X			
WW	Port of Longview Rail Loop Construction		X	X				X			
WW	Port of Olympia and East Olympia Freight Rail Enhancement Project			X	X	X	X	X	X		
WW	Rail Car Storage East of Aberdeen						X		X		
WW	Rail Enhancement Project				X			X	X		
WW	Rail spur & reload for styrofoam recycler			X			X	X			
WW	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail			X			X		X		
WW	Repair Railroad Bridges				X				X		X
WW	Ridgefield Rail Overpass	X							X	X	
WW	Scott Avenue Railroad Overcrossing/Grade Separation	X	X	X				X	X	X	

Area	Project Name	High-Speed Pass Rail	Mainline Capacity Expan	Port-to-Rail Access	Maint, Repair, and Rehab	Signal System	Line Upgrade or Expan	Facility Upgrade or Expan	Safety and Security	Grade Sep	Bridge Rehab or Replace
WW	SR 432/433 Grade Separation & Rail Improvements	X	X	X		X	X		X	X	
WW	Swanson Bark Rail Spur				X			X	X		
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail		X	X		X	X		X		
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail Phase 1B						X				
WW	Tacoma Rail/Frederickson to Morton - Track Rehab				X		X				X
WW	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur						X				
WW	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab				X						
WW	West Vancouver Freight Access Schedule 2-4		X	X			X				

Exhibit 8A-5: Project List by Public Benefits

Area	Project Name	Improve Air Quality	Enviro Protect/ Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
EW	13th Avenue Improvements			X			X	X			X
EW	Bingen Point Rail Crossing		X	X		X	X		X	X	X
EW	BPIC Intermodal Hub Rail Development, Phase 4 and 5			X			X				X
EW	Bridge upgrades for 286K						X				X
EW	Cheney Siding						X		X		X
EW	CW Branch Rail Renewal	X	X		X	X	X				X
EW	CW Line/Lincoln County - Grade Crossing Rehab				X		X		X		
EW	East Leg of Wishram Wye										
EW	Ellensburg-Lind Corridor Reactivation						X				X
EW	Ellensburg-Lind Corridor Reactivation										
EW	Extend Cheney Siding						X				
EW	Geiger - New Transloader						X				X
EW	Geiger Spur Rehabilitation		X								X
EW	Havana St. - BNSF Crossing			X			X				X
EW	Install Centralized Train Control						X				
EW	Lincoln Co. PDA/Creston - New Rail Spur						X				X
EW	Palouse River and Coulee City RR - Rail Authority-Sponsored Rehab				X		X		X		
EW	Pasco Bridge Span Replacement						X				
EW	PCC Rail System Rehab				X		X		X		X
EW	Port of Columbia/Wallula to Dayton - Track Rehab						X				X
EW	Port of Ephrata/Ephrata Spur Rehab Phase II						X		X		

Area	Project Name	Improve Air Quality	Enviro Protect/ Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
EW	Port of Moses Lake/Northern Columbia Basin - RR Engineering and Environmental	X	X	X		X	X		X	X	X
EW	Port of Quincy Rail Loop										
EW	Port of Sunnyside										
EW	Power Operate Manual Sidings						X				
EW	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901					X			X		X
EW	Riparia tie and surface project										
EW	Royal Rail Line Rehabilitation Project	X		X			X		X		X
EW	Stampede Pass Project										
EW	Tacoma Creek Bridge						X		X		
EW	Vista Siding Extension										X
EW	Webb Siding Extension						X				X
EW	Wenatchee Hawley Street Grade Separation		X	X		X	X	X	X	X	X
EW	Yakima Grade Separated Rail Crossing			X			X	X	X		X
EW	Park Rd BNSF Grade Separation										
EW	SR240 & SR224 Interchange & Grade Crossing										
EW	SR27-Pines Rd BNSF Grade Separation										
NC	Statewide - Freight Rail Assistance Program										
NC	Statewide - Rail Bank										
NC	Statewide - Washington Produce Rail Car Pool						X				

Area	Project Name	Improve Air Quality	Enviro Protect/ Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
PS	Ballard Bridge Moveable Span Replacement										
PS	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL										
PS	BNSF Seattle PNW Shop Projects										
PS	Bridge Rehabilitation										
PS	Bullfrog Junction Improvements										
PS	Duwamish Corridor			X			X				
PS	East Everett Ave Crossing										
PS	East Marginal Way Grade Separation	X		X			X				X
PS	Fife 70th Ave Grade Separation										
PS	Fife Yard Improvements						X				
PS	Fife Yard Improvements						X				
PS	Kent S 212th St Grade Separations			X							
PS	Kent S 228th St Corridor Project - Phases II & III Grade Separations			X			X		X		X
PS	Kent Siding Extension						X				
PS	Kent Willis St Grade Separations			X							
PS	Lehigh Cement Rail Extension										
PS	Lincoln Avenue Grade Separation			X			X		X		X
PS	M St SE Grade Separation Project										
PS	Port of Everett Existing Rail Upgrades						X				
PS	Puyallup N Canyon Rd Ext-BNSF Overcrossing										
PS	Puyallup Shaw Road Extension			X			X	X	X		X

Area	Project Name	Improve Air Quality	Enviro Protect/ Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
PS	Renton Strander Blvd-SW 27th St Connection										
PS	Re-rail 4.5 miles of mainline track on the MSN										
PS	South Lander Street Grade Separation			X			X		X		X
PS	South Seattle Domestic Intermodal Facility Improvements										
PS	South Terminal Freight Rail Improvements	X					X				X
PS	SR519 Intermodal Access Project (Phase 2)										
PS	Tacoma Rail/Tacoma - New Refinery Spur			X			X				
PS	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion										
SW	BNSF Positive Train Control Improvements						X	X	X	X	
SW	BNSF Siding Extensions and Double Track Improvements			X		X	X	X	X	X	X
WW	Bellingham - Waterfront Restoration					X					
WW	Bellingham Shipping Terminal Rail Spur Replacement					X	X				X
WW	BNSF Skagit River Bridge Replacment for Flood Risk Reduction		X		X				X		X
WW	Centraillia Steam Plant Switch Upgrade	X		X							
WW	Chelatchie Prairie railroad rehabilitation - Phase 1	X	X	X	X	X	X		X		X

Area	Project Name	Improve Air Quality	Enviro Protect/Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
WW	Clark County Railroad Rehab	X	X	X	X	X	X	X	X	X	X
WW	Clark County/Chelatchie Prairie RR/Battle Ground to Vancouver - Track Rehab				X		X				
WW	Clark County-Owned RR/Vancouver - Track Rehab				X		X				
WW	Expansion on First Street								X		
WW	Extend Sumner Siding						X				
WW	Interstate Yard						X				
WW	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation						X	X	X		X
WW	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing						X	X	X		X
WW	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks						X	X	X		X
WW	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation			X	X	X	X	X	X	X	X
WW	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road						X	X	X		X
WW	Longview Junction Bypass										
WW	Mt Vernon Bridge Replacement										
WW	Port Grays Harbor Terminal 2 Grain Storage Facility	X		X		X	X				X
WW	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	X	X	X		X	X				X

Area	Project Name	Improve Air Quality	Enviro Protect/ Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
WW	Port of Grays Harbor Terminal 4 Rail Upgrade	X		X	X	X	X				X
WW	Port of Longview Rail Loop Construction	X		X		X	X				X
WW	Port of Olympia and East Olympia Freight Rail Enhancement Project	X	X	X		X	X		X		X
WW	Rail Car Storage East of Aberdeen			X					X		
WW	Rail Enhancement Project						X		X		X
WW	Rail spur & reload for styrofoam recycler	X	X	X	X	X	X				X
WW	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail		X	X					X		
WW	Repair Railroad Bridges								X	X	
WW	Ridgefield Rail Overpass	X	X	X		X	X	X	X	X	X
WW	Scott Avenue Railroad Overcrossing/Grade Separation					X	X		X	X	X
WW	SR 432/433 Grade Separation & Rail Improvements	X	X	X	X	X	X		X	X	X
WW	Swanson Bark Rail Spur	X	X	X		X	X		X	X	X
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail			X			X	X		X	
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail Phase 1B									X	
WW	Tacoma Rail/Frederickson to Morton - Track Rehab										

Area	Project Name	Improve Air Quality	Enviro Protect/ Enhance	Reduce Congest	Reduce Public Expense	Improve Land Use	Enhance Mobility of Goods	Enhance Mobility of People	Enhance Public Safety	Enhance Public Security	Enhance Trade and Econ Develop
WW	Tacoma Rail/Roy - New Connection to BNSF and Yelm- Owned Spur						X				
WW	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab						X	X			
WW	West Vancouver Freight Access Schedule 2-4			X			X				X

Exhibit 8A-6: Project List by Private Benefits

Area	Project Name	Improved Economic Competitiveness	Improved Assets	Improved Service	Reduced Costs
EW	13th Avenue Improvements		X		X
EW	Bingen Point Rail Crossing	X		X	
EW	BPIC Intermodal Hub Rail Development, Phase 4 and 5	X	X	X	
EW	Bridge upgrades for 286K	X	X	X	X
EW	Cheney Siding	X	X	X	X
EW	CW Branch Rail Renewal	X		X	X
EW	CW Line/Lincoln County - Grade Crossing Rehab	X		X	X
EW	East Leg of Wishram Wye				
EW	Ellensburg-Lind Corridor Reactivation				
EW	Ellensburg-Lind Corridor Reactivation				
EW	Extend Cheney Siding	X		X	
EW	Geiger - New Transloader	X			X
EW	Geiger Spur Rehabilitation	X	X		X
EW	Havana St. - BNSF Crossing				
EW	Install Centralized Train Control	X		X	
EW	Lincoln Co. PDA/Creston - New Rail Spur	X		X	X
EW	Palouse River and Coulee City RR - Rail Authority-Sponsored Rehab	X		X	X
EW	Park Rd BNSF Grade Separation				
EW	Pasco Bridge Span Replacement	X	X	X	X
EW	PCC Rail System Rehab	X		X	X
EW	Port of Columbia/Wallula to Dayton - Track Rehab	X			X
EW	Port of Ephrata/Ephrata Spur Rehab Phase II	X		X	X
EW	Port of Moses Lake/Northern Columbia Basin - RR Engineering and Environmental				
EW	Port of Quincy Rail Loop				
EW	Port of Sunnyside				
EW	Power Operate Manual Sidings	X		X	
EW	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901	X			
EW	Riparia tie and surface project				
EW	Royal Rail Line Rehabilitation Project	X	X	X	X
EW	SR240 & SR224 Interchange & Grade Crossing				

Area	Project Name	Improved Economic Competitiveness	Improved Assets	Improved Service	Reduced Costs
EW	SR27-Pines Rd BNSF Grade Separation				
EW	Stampede Pass Project				
EW	Tacoma Creek Bridge	X		X	
EW	Vista Siding Extension	X		X	
EW	Webb Siding Extension	X		X	X
EW	Wenatchee Hawley Street Grade Separation	X	X	X	
EW	Yakima Grade Separated Rail Crossing	X		X	
NC	Statewide - Freight Rail Assistance Program				
NC	Statewide - Rail Bank				
NC	Statewide - Washington Produce Rail Car Pool				
PS	Ballard Bridge Moveable Span Replacement				
PS	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL	X	X	X	X
PS	BNSF Seattle PNW Shop Projects				
PS	Bridge Rehabilitation				
PS	Bullfrog Junction Improvements				
PS	Duwamish Corridor	X		X	
PS	East Everett Ave Crossing				
PS	East Marginal Way Grade Separation			X	
PS	Fife 70th Ave Grade Separation				
PS	Fife Yard Improvements	X		X	
PS	Fife Yard Improvements	X		X	
PS	Kent S 212th St Grade Separations				
PS	Kent S 228th St Corridor Project - Phases II & III Grade Separations				
PS	Kent Siding Extension	X		X	
PS	Kent Willis St Grade Separations				
PS	Lehigh Cement Rail Extension				
PS	Lincoln Avenue Grade Separation				
PS	M St SE Grade Separation Project				
PS	Port of Everett Existing Rail Upgrades		X		
PS	Puyallup N Canyon Rd Ext-BNSF Overcrossing				
PS	Puyallup Shaw Road Extension				

Area	Project Name	Improved Economic Competitiveness	Improved Assets	Improved Service	Reduced Costs
PS	Renton Strander Blvd-SW 27th St Connection				
PS	Re-rail 4.5 miles of mainline track on the MSN	X	X	X	X
PS	South Lander Street Grade Separation			X	
PS	South Seattle Domestic Intermodal Facility Improvements				
PS	South Terminal Freight Rail Improvements	X	X	X	
PS	SR519 Intermodal Access Project (Phase 2)				
PS	Tacoma Rail/Tacoma - New Refinery Spur	X		X	X
PS	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion		X	X	
SW	BNSF Positive Train Control Improvements				
SW	BNSF Siding Extensions and Double Track Improvements	X	X	X	X
WW	Bellingham - Waterfront Restoration				
WW	Bellingham Shipping Terminal Rail Spur Replacement	X		X	X
WW	BNSF Skagit River Bridge Replacment for Flood Risk Reduction		X	X	X
WW	Centrailia Steam Plant Switch Upgrade	X	X	X	X
WW	Chelatchie Prairie railroad rehabilitation - Phase 1	X	X	X	X
WW	Clark County Railroad Rehab	X	X	X	X
WW	Clark County/Chelatchie Prairie RR/Battle Ground to Vancouver - Track Rehab			X	
WW	Clark County-Owned RR/Vancouver - Track Rehab			X	
WW	Expansion on First Street				
WW	Extend Sumner Siding	X		X	
WW	Interstate Yard				
WW	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation				
WW	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing				
WW	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks				
WW	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	X	X	X	X
WW	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road				
WW	Longview Junction Bypass				
WW	Mt Vernon Bridge Replacement				
WW	Port Grays Harbor Terminal 2 Grain Storage Facility	X	X	X	X
WW	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	X	X	X	X

Area	Project Name	Improved Economic Competitiveness	Improved Assets	Improved Service	Reduced Costs
WW	Port of Grays Harbor Terminal 4 Rail Upgrade	X		X	X
WW	Port of Longview Rail Loop Construction	X	X	X	X
WW	Port of Olympia and East Olympia Freight Rail Enhancement Project	X	X	X	X
WW	Rail Car Storage East of Aberdeen				
WW	Rail Enhancement Project	X	X	X	
WW	Rail spur & reload for styrofoam recycler	X	X	X	X
WW	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail			X	
WW	Repair Railroad Bridges		X		
WW	Ridgefield Rail Overpass				
WW	Scott Avenue Railroad Overcrossing/Grade Separation	X	X	X	
WW	SR 432/433 Grade Separation & Rail Improvements	X	X	X	X
WW	Swanson Bark Rail Spur	X	X	X	X
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail				
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail Phase 1B				
WW	Tacoma Rail/Frederickson to Morton - Track Rehab				
WW	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur			X	
WW	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab	X		X	
WW	West Vancouver Freight Access Schedule 2-4			X	

Exhibit 8A-7: Project List by Cost Estimates

Area	Project Name	Estimated Total Project Cost	Preliminary Engineering	Right-of-Way	Construction	Unknown
EW	13th Avenue Improvements	\$2,100,000	\$1,500,000	\$500,000	\$13,000,000	\$0
EW	Bingen Point Rail Crossing	\$15,000,000	\$0	\$0	\$0	\$0
EW	BPIC Intermodal Hub Rail Development, Phase 4 and 5	\$3,100,000	\$0	\$0	\$0	\$4,300,000
EW	Bridge upgrades for 286K	\$0	\$1,800,000	\$0	\$58,000,000	\$0
EW	Cheney Siding	\$580,000	\$1,000,000	\$300,000	\$27,700,000	\$0
EW	CW Branch Rail Renewal	\$64,860,000	\$3,000,000	\$0	\$6,186,000	\$0
EW	CW Line/Lincoln County - Grade Crossing Rehab	\$371,000	\$0	\$0	\$371,000	\$0
EW	East Leg of Wishram Wye	\$0	\$0	\$0	\$0	\$0
EW	Ellensburg-Lind Corridor Reactivation	\$0	\$0	\$0	\$0	\$0
EW	Ellensburg-Lind Corridor Reactivation	\$0	\$0	\$0	\$0	\$0
EW	Extend Cheney Siding	\$0	\$0	\$0	\$0	\$0
EW	Geiger - New Transloader	\$4,400,000	\$400,000	\$0	\$4,000,000	\$0
EW	Geiger Spur Rehabilitation	\$880,000	\$2,500,000	\$500,000	\$9,500,000	\$0
EW	Havana St. - BNSF Crossing	\$26,700,000	\$1,300,000	\$8,400,000	\$17,000,000	\$0
EW	Install Centralized Train Control	\$0	\$0	\$0	\$0	\$0
EW	Lincoln Co. PDA/Creston - New Rail Spur	\$346,000	\$0	\$0	\$346,000	\$0
EW	Palouse River and Coulee City RR - Rail Authority-Sponsored Rehab	\$8,600,000	\$0	\$0	\$0	\$0
EW	Pasco Bridge Span Replacement	\$0	\$0	\$0	\$0	\$0
EW	PCC Rail System Rehab	\$100,000,000	\$1,500,000	\$0	\$98,500,000	\$0
EW	Port of Columbia/Wallula to Dayton - Track Rehab	\$11,000,000	\$1,000,000	\$0	\$10,000,000	\$0
EW	Port of Ephrata/Ephrata Spur Rehab Phase II	\$363,000	\$0	\$0	\$363,000	\$0
EW	Port of Moses Lake/Northern Columbia Basin - RR Engineering and Environmental	\$29,650,000	\$1,509,000	\$0	\$28,141,000	\$0
EW	Port of Quincy Rail Loop	\$0	\$0	\$0	\$0	\$0
EW	Port of Sunnyside	\$0	\$0	\$0	\$2,100,000	\$0
EW	Power Operate Manual Sidings	\$0	\$0	\$0	\$0	\$0
EW	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901	\$505,000	\$1,000,000	\$0	\$14,000,000	\$0
EW	Riparia tie and surface project	\$880,000	\$35,000	\$0	\$845,000	\$0
EW	Royal Rail Line Rehabilitation Project	\$1,750,000	\$10,000	\$0	\$468,000	\$0

Area	Project Name	Estimated Total Project Cost	Preliminary Engineering	Right-of-Way	Construction	Unknown
EW	Stampede Pass Project	\$0	\$0	\$0	\$0	\$0
EW	Tacoma Creek Bridge	\$125,000	\$0	\$0	\$1,000,000	\$0
EW	Vista Siding Extension	\$0	\$0	\$0	\$0	\$0
EW	Webb Siding Extension	\$297,000	\$0	\$0	\$0	\$0
EW	Wenatchee Hawley Street Grade Separation	\$22,000,000	\$0	\$0	\$0	\$0
EW	Yakima Grade Separated Rail Crossing	\$42,774,000	\$5,264,000	\$4,400,000	\$33,110,000	\$0
EW	Park Rd BNSF Grade Separation	\$32,382,000	\$0	\$0	\$0	\$0
EW	SR240 & SR224 Interchange & Grade Crossing	\$9,300,000	\$0	\$0	\$0	\$0
EW	SR27-Pines Rd BNSF Grade Separation	\$11,720,000	\$0	\$0	\$0	\$0
NC	Statewide - Freight Rail Assistance Program	\$0	\$0	\$0	\$0	\$0
NC	Statewide - Rail Bank	\$0	\$0	\$0	\$0	\$0
NC	Statewide - Washington Produce Rail Car Pool	\$1,974,000	\$0	\$0	\$0	\$0
PS	Ballard Bridge Moveable Span Replacement	\$0	\$0	\$0	\$0	\$0
PS	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL	\$2,000,000	\$0	\$0	\$0	\$0
PS	BNSF Seattle PNW Shop Projects	\$0	\$0	\$0	\$0	\$0
PS	Bridge Rehabilitation	\$0	\$0	\$0	\$0	\$0
PS	Bullfrog Junction Improvements	\$0	\$0	\$0	\$0	\$0
PS	Duwamish Corridor	\$12,000,000	\$0	\$0	\$0	\$6,200,000
PS	East Everett Ave Crossing	\$16,520,000	\$0	\$0	\$0	\$0
PS	East Marginal Way Grade Separation	\$49,000,000	\$7,500,000	\$12,000,000	\$29,400,000	\$0
PS	Fife 70th Ave Grade Separation	\$17,500,000	\$0	\$0	\$0	\$0
PS	Fife Yard Improvements	\$0	\$0	\$0	\$0	\$0
PS	Fife Yard Improvements	\$0	\$0	\$0	\$0	\$0
PS	Kent S 212th St Grade Separations	\$83,170,000	\$8,550,000	\$0	\$58,620,000	\$16,000,000
PS	Kent S 228th St Corridor Project - Phases II & III Grade Separations	\$45,600,000	\$3,900,000	\$10,400,000	\$26,400,000	\$4,900,000
PS	Kent Siding Extension	\$0	\$0	\$0	\$0	\$0
PS	Kent Willis St Grade Separations	\$81,700,000	\$7,700,000	\$1,000,000	\$53,000,000	\$20,000,000
PS	Lehigh Cement Rail Extension	\$0	\$0	\$0	\$0	\$0
PS	Lincoln Avenue Grade Separation	\$53,200,000	\$5,800,000	\$5,100,000	\$42,300,000	\$0
PS	M St SE Grade Separation Project	\$26,230,000	\$0	\$0	\$0	\$0

Area	Project Name	Estimated Total Project Cost	Preliminary Engineering	Right-of-Way	Construction	Unknown
PS	Port of Everett Existing Rail Upgrades	\$170,000	\$0	\$0	\$0	\$0
PS	Puyallup N Canyon Rd Ext-BNSF Overcrossing	\$25,000,000	\$0	\$0	\$0	\$0
PS	Puyallup Shaw Road Extension	\$24,600,000	\$3,200,000	\$3,200,000	\$18,200,000	\$0
PS	Renton Strander Blvd-SW 27th St Connection	\$12,320,000	\$790,000	\$0	\$11,530,000	\$0
PS	Re-rail 4.5 miles of mainline track on the MSN	\$4,500,000	\$90,000	\$0	\$800,000	\$10,000
PS	South Lander Street Grade Separation	\$152,000,000	\$8,300,000	\$32,800,000	\$110,900,000	\$0
PS	South Seattle Domestic Intermodal Facility Improvements	\$0	\$0	\$0	\$0	\$0
PS	South Terminal Freight Rail Improvements	\$770,000	\$2,000,000	\$3,500,000	\$25,000,000	\$0
PS	SR519 Intermodal Access Project (Phase 2)	\$0	\$0	\$0	\$0	\$0
PS	Tacoma Rail/Tacoma - New Refinery Spur	\$825,000	\$0	\$0	\$825,000	\$0
PS	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion	\$1,570,000	\$0	\$0	\$367,000	\$0
SW	BNSF Positive Train Control Improvements	\$0	\$0	\$0	\$0	\$0
SW	BNSF Siding Extensions and Double Track Improvements	\$0	\$0	\$0	\$0	\$0
WW	Bellingham - Waterfront Restoration	\$44,602,000	\$4,507,000	\$4,975,000	\$35,121,000	\$0
WW	Bellingham Shipping Terminal Rail Spur Replacement	\$2,000,000	\$0	\$0	\$0	\$0
WW	BNSF Skagit River Bridge Replacment for Flood Risk Reduction	\$59,800,000	\$400,000	\$0	\$1,600,000	\$0
WW	Centrailia Steam Plant Switch Upgrade	\$0	\$0	\$0	\$0	\$0
WW	Chelatchie Prairie railroad rehabilitation - Phase 1	\$23,000,000	\$0	\$0	\$80,000	\$0
WW	Clark County Railroad Rehab	\$29,000,000	\$0	\$0	\$4,500,000	\$0
WW	Clark County/Chelatchie Prairie RR/Battle Ground to Vancouver - Track Rehab	\$1,000,000	\$0	\$0	\$1,000,000	\$0
WW	Clark County-Owned RR/Vancouver - Track Rehab	\$404,000	\$5,000	\$0	\$399,000	\$0
WW	Expansion on First Street	\$250,000	\$0	\$0	\$0	\$0
WW	Extend Sumner Siding	\$0	\$0	\$0	\$0	\$0
WW	Interstate Yard	\$0	\$0	\$0	\$0	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation	\$0	\$15,000	\$0	\$155,000	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing	\$0	\$150,000	\$150,000	\$4,200,000	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks	\$47,000,000	\$500,000	\$0	\$7,500,000	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	\$117,000,000	\$0	\$0	\$0	\$0

Area	Project Name	Estimated Total Project Cost	Preliminary Engineering	Right-of-Way	Construction	Unknown
WW	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road	\$28,000,000	\$35,000	\$65,000	\$800,000	\$0
WW	Longview Junction Bypass	\$0	\$0	\$0	\$0	\$0
WW	Mt Vernon Bridge Replacement	\$0	\$0	\$0	\$0	\$0
WW	Port Grays Harbor Terminal 2 Grain Storage Facility	\$69,000,000	\$5,000,000	\$0	\$64,000,000	\$0
WW	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	\$2,650,000	\$150,000	\$0	\$2,000,000	\$0
WW	Port of Grays Harbor Terminal 4 Rail Upgrade	\$8,000,000	\$0	\$0	\$0	\$0
WW	Port of Longview Rail Loop Construction	\$900,000	\$35,000	\$65,000	\$800,000	\$0
WW	Port of Olympia and East Olympia Freight Rail Enhancement Project	\$40,000,000	\$0	\$0	\$0	\$0
WW	Rail Car Storage East of Aberdeen	\$4,300,000	\$0	\$0	\$0	\$0
WW	Rail Enhancement Project	\$1,000,000	\$2,700,000	\$0	\$0	\$0
WW	Rail spur & reload for styrofoam recycler	\$1,075,000	\$50,000	\$25,000	\$1,000,000	\$0
WW	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail	\$15,000,000	\$0	\$0	\$0	\$0
WW	Repair Railroad Bridges	\$2,500,000	\$0	\$0	\$2,500,000	\$0
WW	Ridgefield Rail Overpass	\$12,500,000	\$0	\$0	\$12,500,000	\$0
WW	Scott Avenue Railroad Overcrossing/Grade Separation	\$62,000,000	\$275,000	\$0	\$22,675,000	\$0
WW	SR 432/433 Grade Separation & Rail Improvements	\$180,000,000	\$25,000	\$0	\$555,000	\$0
WW	Swanson Bark Rail Spur	\$2,385,000	\$150,000	\$85,000	\$2,150,000	\$0
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail	\$17,500,000	\$700,000	\$6,700,000	\$13,000,000	\$0
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail Phase 1B	\$9,500,000	\$0	\$400,000	\$9,000,000	\$0
WW	Tacoma Rail/Frederickson to Morton - Track Rehab	\$1,485,000	\$0	\$0	\$1,485,000	\$0
WW	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur	\$1,928,000	\$250,000	\$200,000	\$1,478,000	\$0
WW	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab	\$755,000	\$0	\$0	\$755,000	\$0
WW	West Vancouver Freight Access Schedule 2-4	\$137,500,000	\$7,250,000	\$20,250,000	\$110,000,000	\$0

Exhibit 8A-8: Project List by Committed Funds

Area	Project Name	Federal	State	Local	Tribal	Private	Other
EW	13th Avenue Improvements	\$0	\$0	\$0	\$0	\$0	\$0
EW	Bingen Point Rail Crossing	\$0	\$0	\$0	\$0	\$0	\$0
EW	BPIC Intermodal Hub Rail Development, Phase 4 and 5	\$0	\$0	\$0	\$0	\$0	\$0
EW	Bridge upgrades for 286K	\$0	\$0	\$600,000	\$0	\$0	\$0
EW	Cheney Siding	\$0	\$1,366,000	\$129,000	\$0	\$0	\$0
EW	CW Branch Rail Renewal	\$0	\$0	\$0	\$0	\$0	\$0
EW	CW Line/Lincoln County - Grade Crossing Rehab	\$0	\$371,000	\$0	\$0	\$0	\$0
EW	East Leg of Wishram Wye	\$0	\$0	\$0	\$0	\$0	\$0
EW	Ellensburg-Lind Corridor Reactivation	\$0	\$0	\$0	\$0	\$0	\$0
EW	Ellensburg-Lind Corridor Reactivation	\$0	\$0	\$0	\$0	\$0	\$0
EW	Extend Cheney Siding	\$0	\$0	\$0	\$0	\$0	\$0
EW	Geiger - New Transloader	\$0	\$790,000	\$0	\$0	\$0	\$0
EW	Geiger Spur Rehabilitation	\$0	\$0	\$3,500,000	\$625,000	\$0	\$0
EW	Havana St. - BNSF Crossing	\$0	\$0	\$0	\$0	\$0	\$0
EW	Install Centralized Train Control	\$0	\$0	\$0	\$0	\$0	\$0
EW	Lincoln Co. PDA/Creston - New Rail Spur	\$0	\$346,000	\$0	\$0	\$0	\$0
EW	Palouse River and Coulee City RR - Rail Authority-Sponsored Rehab	\$0	\$8,600,000	\$0	\$0	\$0	\$0
EW	Pasco Bridge Span Replacement	\$0	\$0	\$0	\$0	\$0	\$0
EW	PCC Rail System Rehab	\$0	\$0	\$0	\$0	\$0	\$0
EW	Port of Columbia/Wallula to Dayton - Track Rehab	\$0	\$252,000	\$0	\$0	\$0	\$0
EW	Port of Ephrata/Ephrata Spur Rehab Phase II	\$0	\$363,000	\$0	\$0	\$0	\$0
EW	Port of Moses Lake/Northern Columbia Basin - RR Engineering and Environmental	\$0	\$4,000,000	\$0	\$0	\$0	\$0
EW	Port of Quincy Rail Loop	\$0	\$3,684,000	\$0	\$0	\$0	\$0
EW	Port of Sunnyside	\$0	\$0	\$0	\$0	\$0	\$0
EW	Power Operate Manual Sidings	\$0	\$0	\$0	\$0	\$0	\$0
EW	Quiet zone application at the Russell Avenue Crossing, Crossing No. 0901	\$0	\$0	\$3,000,000	\$0	\$0	\$0
EW	Riparia tie and surface project	\$0	\$0	\$0	\$0	\$0	\$0
EW	Royal Rail Line Rehabilitation Project	\$0	\$363,000	\$116,000	\$0	\$0	\$0
EW	Stampede Pass Project	\$0	\$0	\$0	\$0	\$0	\$0
EW	Tacoma Creek Bridge	\$0	\$0	\$50,000	\$0	\$0	\$0

Area	Project Name	Federal	State	Local	Tribal	Private	Other
EW	Vista Siding Extension	\$0	\$0	\$0	\$0	\$0	\$0
EW	Webb Siding Extension	\$0	\$0	\$0	\$0	\$0	\$0
EW	Wenatchee Hawley Street Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
EW	Yakima Grade Separated Rail Crossing	\$0	\$0	\$0	\$0	\$0	\$0
EW	Park Rd BNSF Grade Separation	\$0	\$7,000,000	\$0	\$0	\$0	\$0
EW	SR240 & SR224 Interchange & Grade Crossing	\$0	\$0	\$0	\$0	\$0	\$0
EW	SR27-Pines Rd BNSF Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
NC	Statewide - Freight Rail Assistance Program	\$0	\$0	\$0	\$0	\$0	\$0
NC	Statewide - Rail Bank	\$0	\$0	\$0	\$0	\$0	\$0
NC	Statewide - Washington Produce Rail Car Pool	\$1,974,000	\$0	\$0	\$0	\$0	\$0
PS	Ballard Bridge Moveable Span Replacement	\$0	\$0	\$0	\$0	\$0	\$0
PS	Ballard Terminal RehabRe-rail 2 miles of mainline track on the BDTL	\$0	\$0	\$0	\$0	\$0	\$0
PS	BNSF Seattle PNW Shop Projects	\$0	\$0	\$0	\$0	\$0	\$0
PS	Bridge Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0
PS	Bullfrog Junction Improvements	\$0	\$0	\$0	\$0	\$0	\$0
PS	Duwamish Corridor	\$0	\$0	\$0	\$0	\$0	\$0
PS	East Everett Ave Crossing	\$0	\$0	\$0	\$0	\$0	\$0
PS	East Marginal Way Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
PS	Fife 70th Ave Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
PS	Fife Yard Improvements	\$0	\$0	\$0	\$0	\$0	\$0
PS	Fife Yard Improvements	\$0	\$0	\$0	\$0	\$0	\$0
PS	Kent S 212th St Grade Separations	\$0	\$0	\$0	\$0	\$0	\$0
PS	Kent S 228th St Corridor Project - Phases II & III Grade Separations	\$0	\$0	\$0	\$0	\$0	\$0
PS	Kent Siding Extension	\$0	\$0	\$0	\$0	\$0	\$0
PS	Kent Willis St Grade Separations	\$0	\$0	\$0	\$0	\$0	\$0
PS	Lehigh Cement Rail Extension	\$0	\$1,200,000	\$0	\$0	\$0	\$0
PS	Lincoln Avenue Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
PS	M St SE Grade Separation Project	\$0	\$0	\$0	\$0	\$0	\$0
PS	Port of Everett Existing Rail Upgrades	\$0	\$4,000,000	\$0	\$0	\$0	\$0
PS	Puyallup N Canyon Rd Ext-BNSF Overcrossing	\$0	\$0	\$0	\$0	\$0	\$0
PS	Puyallup Shaw Road Extension	\$10,500,000	\$6,000,000	\$7,500,000	\$0	\$750,000	\$0
PS	Renton Strander Blvd-SW 27th St Connection	\$0	\$0	\$0	\$0	\$0	\$0
PS	Re-rail 4.5 miles of mainline track on the MSN	\$0	\$400,000	\$0	\$0	\$500,000	\$0

Area	Project Name	Federal	State	Local	Tribal	Private	Other
PS	South Lander Street Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
PS	South Seattle Domestic Intermodal Facility Improvements	\$0	\$0	\$0	\$0	\$0	\$0
PS	South Terminal Freight Rail Improvements	\$0	\$4,000,000	\$200,000	\$0	\$0	\$0
PS	SR519 Intermodal Access Project (Phase 2)	\$0	\$0	\$0	\$0	\$0	\$0
PS	Tacoma Rail/Tacoma - New Refinery Spur	\$0	\$420,000	\$0	\$0	\$405,000	\$0
PS	Tacoma Rail/Tacoma - Rail Servicing Facility Upgrade & Expansion	\$0	\$337,000	\$160,000	\$0	\$0	\$250,000
SW	BNSF Positive Train Control Improvements	\$0	\$0	\$0	\$0	\$0	\$0
SW	BNSF Siding Extensions and Double Track Improvements	\$0	\$0	\$0	\$0	\$0	\$0
WW	Bellingham - Waterfront Restoration	\$0	\$5,000,000	\$0	\$0	\$0	\$0
WW	Bellingham Shipping Terminal Rail Spur Replacement	\$0	\$0	\$0	\$0	\$0	\$0
WW	BNSF Skagit River Bridge Replacment for Flood Risk Reduction	\$0	\$0	\$0	\$0	\$0	\$0
WW	Centraillia Steam Plant Switch Upgrade	\$0	\$0	\$0	\$0	\$0	\$0
WW	Chelatchie Prairie railroad rehabilitation - Phase 1	\$0	\$0	\$0	\$0	\$0	\$0
WW	Clark County Railroad Rehab	\$0	\$0	\$0	\$0	\$200,000	\$0
WW	Clark County/Chelatchie Prairie RR/Battle Ground to Vancouver - Track Rehab	\$0	\$1,000,000	\$0	\$0	\$0	\$0
WW	Clark County-Owned RR/Vancouver - Track Rehab	\$0	\$367,000	\$37,000	\$0	\$0	\$0
WW	Expansion on First Street	\$0	\$0	\$0	\$0	\$0	\$0
WW	Extend Sumner Siding	\$0	\$0	\$0	\$0	\$0	\$0
WW	Interstate Yard	\$0	\$0	\$0	\$0	\$0	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line and Grade Separation	\$0	\$0	\$0	\$0	\$0	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line and Ped Crossing	\$0	\$0	\$0	\$0	\$0	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line and Storage Tracks	\$0	\$0	\$3,000,000	\$0	\$5,000,000	\$0
WW	Kelso to Martin's Bluff - 3rd Main Line, Kelso to Longview Junction, Yew Street pedestrian access, Hazel Street grade separation	\$0	\$0	\$0	\$0	\$0	\$0
WW	Kelso to Martin's Bluff - new siding terminating just north of Toteff Road	\$0	\$0	\$0	\$0	\$0	\$100,000
WW	Longview Junction Bypass	\$0	\$0	\$0	\$0	\$0	\$0
WW	Mt Vernon Bridge Replacement	\$0	\$0	\$0	\$0	\$0	\$0
WW	Port Grays Harbor Terminal 2 Grain Storage Facility	\$0	\$0	\$3,000,000	\$0	\$60,000,000	\$0
WW	Port of Chehalis Regional Rail Reload and Freight Processing Facility - Rail component	\$0	\$0	\$0	\$0	\$0	\$0
WW	Port of Grays Harbor Terminal 4 Rail Upgrade	\$0	\$0	\$0	\$0	\$0	\$0
WW	Port of Longview Rail Loop Construction	\$0	\$0	\$100,000	\$0	\$0	\$0

Area	Project Name	Federal	State	Local	Tribal	Private	Other
WW	Port of Olympia and East Olympia Freight Rail Enhancement Project	\$0	\$0	\$0	\$0	\$0	\$0
WW	Rail Car Storage East of Aberdeen	\$0	\$0	\$0	\$0	\$0	\$0
WW	Rail Enhancement Project	\$0	\$0	\$0	\$0	\$0	\$0
WW	Rail spur & reload for styrofoam recycler	\$0	\$0	\$0	\$0	\$0	\$0
WW	Relocate Rail Line South of Port Industrial Road and/or Create Loop Rail	\$0	\$0	\$0	\$0	\$0	\$0
WW	Repair Railroad Bridges	\$0	\$0	\$0	\$0	\$0	\$0
WW	Ridgefield Rail Overpass	\$12,500,000	\$0	\$0	\$0	\$0	\$0
WW	Scott Avenue Railroad Overcrossing/Grade Separation	\$0	\$1,366,000	\$129,000	\$0	\$0	\$0
WW	SR 432/433 Grade Separation & Rail Improvements	\$0	\$0	\$0	\$0	\$0	\$0
WW	Swanson Bark Rail Spur	\$0	\$0	\$0	\$0	\$1,385,000	\$0
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail	\$0	\$7,400,000	\$0	\$0	\$0	\$0
WW	Tacoma Rail and Puget Sound and Pacific RR/Centralia - Reconfigure Rail Phase 1B	\$3,915,000	\$1,500,000	\$0	\$0	\$0	\$0
WW	Tacoma Rail/Frederickson to Morton - Track Rehab	\$1,485,000	\$0	\$0	\$0	\$0	\$0
WW	Tacoma Rail/Roy - New Connection to BNSF and Yelm-Owned Spur	\$0	\$525,000	\$0	\$0	\$0	\$0
WW	Tacoma Rail/Tacoma to Morton and Yelm - Track Rehab	\$755,000	\$0	\$0	\$0	\$0	\$0
WW	West Vancouver Freight Access Schedule 2-4	\$0	\$0	\$0	\$0	\$0	\$0

Appendix 8-B: Freight Rail Investments – Historical and Planned – Managed by WSDOT

Year	Location	Project Type	Funding	Description
1980	Newport to Metaline Falls	Rail line rehabilitation	\$4,086,000	Supported several businesses after Milwaukee Road abandoned the line. State funds added in 1989.
1981	Othello to Royal City	Rail line acquisition and rehabilitation	\$1,196,000	Maintained rail access after Milwaukee Road abandonment.
1982	Hampton to Lynden	Rail line rehabilitation	\$815,714	Maintained rail access from Sumas line to Lynden.
1983	Port Townsend	Transfer bridge rehabilitation	\$773,000	Repair of bridge near Port Townsend; railroad scrapped in 1984.
1986	Ronald to Cle Elum	Rail line relocation	\$70,000	Line relocation.
1992	Centralia	Line acquisition and rehabilitation	\$281,794	Rail spur to industrial park.
1992	Rye to Battle Ground	Rail line rehabilitation	\$674,900	Supports service on the Lewis and Clark Railway.
1993	Othello to Royal City	Rail line acquisition and rehabilitation	\$400,000	Further improvements to abandoned Milwaukee Road segment. A 2009 WSDOT assessment determined repair requirements to reopen this line.
1993	Toppenish to White Swan	Rail line acquisition	\$348,100	Maintains service to the Yakama Indian Reservation.
1993	Whitman County	Operating and MOW equipment acquisition	\$410,000	Equipment leased by Port to the Blue Mountain Railroad. Two locomotives leased by Port to the Blue Mountain Railroad.
1993	Yelm to Tenino	Rail line acquisition	\$200,000	Rail Banked; 14.6-mile line for corridor preservation.
1994	Mt. Vernon	Rail line rehabilitation	\$177,000	Repairs to 1.8-mile rail line.
1994	Port of Walla Walla	Grain car acquisition - first Grain Train	\$719,500	29 cars; Uses Stripper Well overcharge funds. Serves co-ops in Prescott, Thornton, St. John, and Endicott. State funds used for car painting.
1994	Terrace Heights to Moxee	Rail line rehabilitation	\$779,700	Maintains service to large manufacturer in Moxee. Line reverted to BNSF ownership in 1997.

Year	Location	Project Type	Funding	Description
1994	Walla Walla to Dayton	Rail line rehabilitation	\$1,227,649	Maintains access to food processor and wheat elevator in Prescott.
1995	Blue Slide Tunnel	Tunnel repairs	\$297,500	Phase 1 of 2. Prevents tunnel collapse, loss of rail service to shippers on the line, and damage to SR 20.
1995	Tacoma to Centralia	Rail line acquisition	\$3,250,000	Acquisition of former Milwaukee Road. Line runs between Tacoma and Centralia and Frederickson and Graham.
1996	LaCrosse to Winona	Track rehabilitation	\$330,640	Maintains essential service to major agricultural areas.
1996	Rye to Vancouver Junction	Line rehabilitation	\$824,500	Flood damaged portion of BNSF line donated to county upon receipt of state assistance.
1996	Whitman, Walla Walla, and Columbia Counties	Flood damage repairs	\$1,300,000	Emergency bridge and washout repairs. One-time grant directly from the WA Legislature.
1997	Cheney to Coulee City	Rail line rehabilitation	\$810,170	Keeps grain hauling lines open.
1998	Seattle	Line rehabilitation	\$450,000	Supports several businesses located long the rail line.
1998	Tacoma to Graham	Rail line rehabilitation	\$626,846	Supports several businesses located long the rail line.
1999	Columbia County	Rail line rehabilitation	\$254,846	Maintains service to communities and the Port. Kept county's biggest employer from closing.
1999	Hoquiam	Construct spur track & loading facility	\$433,102	This project helps make the terminal more attractive to businesses considering relocating to Grays Harbor.
1999	Naches	Rail line rehabilitation	\$516,369	Repairs approximately 11 miles of rail line.
1999	Olympia	Additional track capacity	\$269,052	Maintains, with potential to increase, business for the Port, Tumwater, and Lacey.
1999	Yelm	Rail line acquisition	\$411,500	Preserves rail service. Local funds include non-LRFA federal development grant.
2000	Blue Slide Tunnel	Tunnel repairs	\$505,000	Phase 2 of 2. Prevents tunnel collapse, loss of rail service to shippers on the line, and damage to SR 20.

Year	Location	Project Type	Funding	Description
2000	Hoquiam	Marine terminal spur track	\$485,500	This project helps make the terminal more attractive to businesses considering relocating to Grays Harbor.
2000	Hoquiam	Repair work to the Hoquiam River Bridge	\$606,250	Repairs 90-year-old mechanical swing bridge. Bridge now capable of accommodating 286,000 lb. freight cars.
2000	Port of Moses Lake	2nd Grain Train - Acquire 36 used grain hoppers	\$458,887	Purchased by revenues generated by first Grain Train. Generates additional business for endangered Palouse grain rail lines; protects grain hauling rate competition in eastern Washington. Expands total fleet of grain cars to 65 (47 WSDOT, 18 Port of Walla Walla).
2000	Toppenish	Equipment purchase (locomotive)	\$65,000	Supports purchase of one used locomotive to replace under-powered and unreliable unit.
2000	Toppenish to White Swan	Track rehabilitation	\$60,000	Maintains service to several businesses.
2000	Wenatchee	Washington Fruit Express (WFE) refrigerated express railcar design	\$51,000	Design of new express refrigerated railcar. The Washington Fruit Express will carry WA produce behind Amtrak's <i>Empire Builder</i> . Helps local farmers and Amtrak.
2000	Whitman, Lincoln, Spokane & Grant Counties	Track rehabilitation	\$1,170,000	Supports service to Grant, Lincoln, Spokane, & Whitman Counties.
2001	Aberdeen	Loop track construction	\$10,000,000	Allows AgPro to construct a trans-shipment facility at the marine terminal for bulk meal and grains.
2001	Frederickson to Morton	Rail line reopening	\$2,500,000	Reopens washed out freight line for the first time since 1979. Restores rail service to five communities. Local contribution includes non-LRFA federal funds.
2001	Oroville	286K track upgrades	\$485,500	Replaces 2.5 miles of 68 lb. rail with 110 lb. rail for 286K railcar operation.

Year	Location	Project Type	Funding	Description
2001	Richland	Emergency bridge repairs	\$500,000	Emergency grant to cover insurance deductible. Port of Benton had no rail service until fire-damaged bridge was repaired.
2001	White Swan	TS&W rail line extension	\$1,100,000	Extends Toppenish, Simcoe & Western rail line to Yakama Nation Forest Products Sawmill.
2002	Puyallup	Construct siding, basic rehab of 4 miles of rail line, acquire used locomotive	\$400,000	Supports several rail side businesses, who depend on rail for low shipping costs on heavy materials.
2003	Chehalis	Mainline spur construction	\$350,000	Final element needed to open new plastic pipe plant.
2003	Port of Whitman County	3rd Grain Train - acquire 29 used grain hoppers	\$290,000	Generate additional business for endangered Palouse grain rail lines; protect grain hauling rate competition in eastern Washington. Purchased with revenues from first and second Grain Trains.
2004	Airway Heights	Track repairs and upgrades		Helps maintain rail service at the Airway Heights Industrial Park.
2004	Eastern Washington	Rail line acquisition	\$7,350,000	Public acquisition of the Palouse River and Coulee City RR (PCC); places RR under stable ownership and will be combined with a long-term rehabilitation plan.
2004	Frederickson to Eatonville (emergency repairs) and Tacoma to Morton	Track repairs and upgrades		Repairs damaged section of track and upgrades other sections to accommodate more traffic between Morton and Tacoma.
2004	Quincy	Spur and loop track construction		New intermodal facility at Quincy may help divert some I-90 and Puget Sound port truck traffic to rail.
2005	Lewis County	Lewis County rail spur	\$800,000	Constructs approx. 4,000-ft. industrial rail spur from BNSF mainline to a new glass manufacturing plant outside Winlock.

Year	Location	Project Type	Funding	Description
2005	Pierce & Lewis Counties	Tacoma Rail Mountain Division Morton line repairs-Phase 2	\$3,122,000	Phase 2 of Tacoma Rail Mountain Division's Morton line reconstruction to restore rail service after 1996 floods.
2005	Port of Quincy	Port of Quincy intermodal facility	\$1,717,000	New transload facility.
2007	Clark County	Lewis & Clark RR rehab - Vancouver to Battle Ground	\$300,000	Clark County will upgrade ties and ballast at critical points between Vancouver and Battle Ground.
2007	Olympia	Port of Olympia on dock rail spur	\$375,000	Construct an on-dock track the length of the west moorage at Port of Olympia.
2007	Pasco	Port of Pasco - intermodal facility improvements	\$5,400,000	Improvement of the east end connection for locomotives to access the port facility and track upgrades.
2007	Pend Oreille County	Port of Pend Oreille - 286K upgrades	\$655,000	Two miles of rail replacement and general track rehab.
2007	Skagit County	Eastern Skagit Rail Study	\$50,000	Examine the possibility of re-establishing rail service on former rail alignment that is not a trail.
2007	Snohomish County	Snohomish Riverfront redevelopment (rail)	\$1,800,000	Relocates 1.5 miles of BNSF rail line and installs a new junction to support the redevelopment of the Snohomish River waterfront in Everett.
2007	Walla Walla	Port of Walla Walla Railex project	\$3,985,000	Constructs a loop track around Port of Walla Walla property including five turnouts, potable water system, fire flow system, property acquisition, and relocation of irrigation water line.
2008	Cosmopolis	Port of Grays Harbor - rail access improvements	\$741,000	Rail access improvements to increase capacity and allow rail traffic to move easily in the congested area.
2008	Grays Harbor	Port of Grays Harbor/Hoquiam - rail access improvements	\$543,000	Improvements at the Port's industrial site as well as a spur connecting the site with the Puget Sound and Pacific Railroad.

Year	Location	Project Type	Funding	Description
2009	Airway Heights to Medical Lake	Geiger Spur/Airway Heights - new rail connection	\$6,800,000	Connects Airway Heights industrial track to Palouse River & Coulee City Railroad at Medical Lake to avoid shutdown due to Fairchild AFB security issues.
2009	Benton County	Port of Benton – Freight Rail Investment Bank (FRIB) spur	\$250,000	Spur track for transload facility.
2009	Chehalis	Port of Chehalis - track rehabilitation	\$398,000	Matches FEMA funds for the rehabilitation of a rail line to Curtis, and provides rehabilitation funding for flood damage to the rail line to Curtis that is not FEMA-eligible.
2009	Eastern Washington	Palouse River and Coulee City RR - acquisition	\$15,337,000	Purchase 296-mile PCC.
2009	Ephrata	Port of Ephrata/Ephrata - spur rehabilitation	\$127,000	Upgrades and rehabilitates the Port's rail spur.
2009	Everett	Port of Everett - FRIB spur	\$250,000	Rail spur for secondary access to BNSF mainline.
2009	Longview	Port of Longview/Longview - rail loop	\$281,000	Constructs a rail loop that increases operational flexibility and eases congestion on the BNSF mainline.
2009	Morton	Morton Business Development Park	\$1,181,000	Constructs improvements in Morton in support of operations of Tacoma Rail.
2009	Tacoma	City of Tacoma - FRIB locomotive facility	\$250,000	Locomotive servicing facility.
2009	Tacoma	City of Tacoma - FRIB locomotive idling	\$26,386	Locomotive idling improvement.
2009	Tacoma	Tacoma Rail/Tacoma - yard switching upgrades	\$500,000	Automate the Tacoma Rail main yard switching operation at the Port of Tacoma, for increasing the yard capacity and through port to efficiently manage projected Port growth.
2009	Tacoma to Morton	Tacoma Rail/Tacoma to Morton - track rehab	\$2,460,000	Track upgrades to facilitate the future operations of Tacoma's planned excursion train.

Year	Location	Project Type	Funding	Description
2009	Tacoma to Morton	Tacoma Rail/Tacoma to Morton - track rehab	1,230,000	Track upgrades to facilitate the future operations of Tacoma's planned excursion train.
2009	Toppenish to White Swan	White Swan/Toppenish - Yakama Sawmill traffic upgrade	\$637,000	Upgrades existing Toppenish Simcoe & Western line for increased traffic from Yakama Tribe sawmill.
2009	Vancouver	Lewis and Clark RR/Vancouver - rail improvements	\$1,019,000	Rehabilitates a portion of the rail line; also environmental and permitting work needed to improve the interchange facilities between the Lewis and Clark Railroad and the BNSF Railway.
2010	Bellingham	Bellingham - waterfront restoration	\$448,000	Environmental work for relocating a ¾-mile section of the track to allow the site to be redeveloped for recreational, residential, and commercial uses.
2010	Eastern Washington	Palouse River and Coulee City RR – rehabilitation	\$3,600,000	Rehabs PCC track & bridges in Grant, Lincoln, Spokane, & Whitman Counties.
2010	Ephrata	Port of Ephrata - FRIB	\$116,000	Rehabilitation of rail spur.
2010	Moses Lake	Port of Moses Lake/Northern Columbia Basin - RR environmental	\$2,000,000	Develop the required environmental documents to build a more direct line to the airport.
2010	Olympia	Intermodal infrastructure enhancement project, Port	\$2,663,000	Improves the intermodal infrastructure at the Port of Olympia's ocean terminal. Three separate earmarks were provided.
2010	Quincy	Port of Quincy – short-haul intermodal pilot project	\$984,000	Purchase a rail container lift used to load/unload containers on to rail flat/stack cars, a forklift to position containers, essential computer and related communications equipment for business management, and upgrade the water and electrical service at the facility.
2010	Walla Walla to Dayton	Port of Columbia/Wallula to Dayton - track rehab	\$522,000	Rehabilitate the 69-mile line from Wallula to Dayton and various spur tracks.

Year	Location	Project Type	Funding	Description
2011	Creston	Lincoln County PDA/Creston - new rail spur	\$337,978	Builds a stub-end spur into the publicly-owned industrial park directly west of Creston, WA.
2011	Creston	New Creston livestock feed mill spur track	\$30,000	Lincoln County PDA will construct 850' long railroad siding to connect to a new livestock feed plant.
2011	Eastern Washington	Palouse River and Coulee City RR Rail Authority - lines rehab	\$8,600,000	Rail authority-sponsored rehab of state-owned rail lines in Grant, Lincoln, Spokane, & Whitman Counties.
2011	Ephrata	Port of Ephrata/Ephrata - additional spur rehab	\$362,746	Replace additional 3,000 ties needed for a new shipper locating to the Port.
2011	Quincy	Port of Quincy - FRIB	\$3,684,000	Construction of a rail loop.
2011	Frederickson to Morton	Tacoma Rail/Frederickson to Morton - track rehab	\$1,485,000	Replaces lightweight rail with new rail to handle heavier 286,000-pound freight cars.
2011	Frederickson to Morton	Tacoma Rail/Tacoma to Morton and Yelm - track rehab	\$755,000	Replaces rail and ties, which handles heavier 286,000-pound freight cars.
2011	Lincoln County	CW Line/Lincoln County - grade crossing rehab	\$370,650	Rehabilitates and upgrades 11 deteriorated road/rail grade crossings on the CW Line, part of the state-owned former PCC, between Reardon and Wilbur.
2011	Everett	Port of Everett - FRIB	\$1,200,000	New rail track to connect a cement loading facility to the mainline.
2011	Moses Lake	Port of Moses Lake/Northern Columbia Basin – track rehab and extension	\$2,000,000	Extend and rehabilitate track that serves the industrial park to the east and north of the Grant County International Airport.
2011	Pasco	Port of Pasco - intermodal facility improvements	\$882,000	Expands the facilities rail infrastructure, improving east end connection for locomotives access through the port facility.

Year	Location	Project Type	Funding	Description
2011	Roy	Tacoma Rail/Roy - new connection to BNSF and Yelm	\$525,000	Construct approximately 4,300 ft. of new track, including a crossing of SR 507, to connect the Tacoma Rail line between Frederickson and Centralia with the BNSF branch line west of Roy.
2011	Tacoma	Tacoma Rail/Tacoma - improved locomotive facility	\$366,813	This project reconfigures the tracks for better accessibility as well as increasing the servicing capabilities with the new facilities.
2011	Tacoma	Tacoma Rail/Tacoma - new refinery spur tracks	\$420,000	Constructs a third rail spur, installs a new turnout and associated rail infrastructure to improve capacity and logistical capabilities.
2011	Vancouver	Chelatchie Prairie RR/Vancouver - track rehabilitation	\$366,813	This project will continue rehabilitation of the track between Rye Junction and Battle Ground, resulting in a Class I status, increasing freight mobility and attracting shippers to the line. The project replaces ties, ballast, services rail joints, and replaces light weight rail.
2011	Vancouver	Clark County/Chelatchie Prairie RR - track rehab	\$1,000,000	Rehabilitation of the 33-mile segment of track between Vancouver and Battle Ground along the Chelatchie Prairie Railroad owned by Clark County.
2012	Eastern and Western Washington	Statewide - Washington Produce Rail Car Pool	\$1,974,000	There is a shortage of refrigerated railcars available to Washington growers during peak seasons. This project will create a fleet of refrigerated railcars. This will result in lower costs to growers and reduce the wear and tear on state roadways caused by heavy truckloads.

Note: This table is summarized in Chapter 5, Exhibit 5-3.

Source: WSDOT State Rail and Marine Office

Appendix 9: Glossary

AAR

Association of American Railroads

AASHTO

American Association of State Highway and Transportation Officials

ACSES

Advanced Civil Speed Enforcement System

Amtrak

American travel by track – National Railroad Passenger Corporation

ARRA

American Recovery and Reinvestment Act of 2009

B.C.

British Columbia

B/C

Benefit/cost

BCRC

British Columbia Railway

BDTL

Ballard Terminal Railroad

BNSF

BNSF Railway Company

Break-bulk

Break-bulk cargo is cargo that is too big or too heavy to fit into a container or traditionally cannot be vacuumed out of a ship.

BTS

Bureau of Transportation Statistics

BYCX

Battle Ground Chelatchie Prairie Railroad

CBRW

Columbia Basin Railroad

CERB

Community Economic Revitalization Board

CFR

Code of Federal Regulations

CIA

Central Intelligence Agency

Class I Railroad

A railroad having annual carrier operating revenues of \$250 million or more.

Class II Railroad

A railroad having annual carrier operating revenues of less than \$250 million, but in excess of \$20 million.

Class III Railroad

A railroad having annual carrier operating revenues of \$20 million or less.

Classification

A sorting and grouping of rail cars according to destination point

CLC

Columbia and Cowlitz Railway

Clearing

Clearing refers to the crowning of a tunnel to allow taller rail cars to pass through or “clear” under the ceiling of the tunnel.

Climate Team

Governor's 2008 Climate Action Team – Transportation Implementation Working Group

CMAQ

Congestion Mitigation and Air Quality

CO

Carbon Monoxide

CO₂

Carbon Dioxide

CREATE Program

Chicago Region Environmental and Transportation Efficiency Program

CSCD

Cascade and Columbia River Railroad

CSX

CSX Corporation

CSXT

CSX Transportation

CTC

Centralized Traffic Control

CWA

Central Washington Railroad

DAHP

Department of Archaeology and Historical Preservation

Deep Draft Port

A deep draft port is a port that can receive a ship with a laden draught of 40 feet or less. A very deep draft port is one that can handle a laden draught of 45 feet or less, which are most container ships and other large ships including military ships.

Directional Running

Directional running is the concept that trains are routed only one direction on a corridor. Similar to a one-way street, operational capacity increases when all trains move in the same direction.

DOT

Department of Transportation

DPU

Distributed power units or mid-train helpers are engines that are placed in the middle of the train. These additional engines help “power” a long or heavy train by distributing the load of the train between the front engines and those in the middle of the train.

EA

Environmental Assessment

EDA

Economic Development Administration

EIS

Environmental Impact Statement

EPA

Environmental Protection Agency

ETMS

Electronic Train Management System

EWG

Eastern Washington Gateway Railroad

Export Elevators

Export elevators are elevators that can load export ships directly from the elevator.

FAF

Freight Analysis Framework

FAST Corridor

Freight Action Strategy Corridor

FGTS

Freight Goods and Transportation System

FHWA

Federal Highway Administration

FLH

Office of Federal Lands Highway

FLHP

Federal Lands Highway Program

FLMA

Federal land management agencies

FMSIB

Freight Mobility Strategic Investment Board

FRA

Federal Railroad Administration
Fish and Wildlife Service

FRIB

Federal Rail Investment Bank

GDP

Gross Domestic Product

GHG

Greenhouse Gases

Good Condition

Not needing repair or maintenance.

Good Rail Access

Trains can get in and out of a rail facility without delay to the facility, trains or other rail operations on a rail line.

Grade Separation

A grade separation is when an at-grade road that crosses a rail line is separated from the rail line by elevating the road as an overpass over the rail line or elevating the rail line on a trestle.

GRNW

Great Northwest Railroad

Gross Business Income

Gross Business Income is a measure of total revenue reported to the state.

HCT

High Capacity Transit

HIM

Hyundai Intermodal Terminal

HR

House Resolution

HSIPR

High-Speed Intercity Passenger Rail

I-5, I-90

Interstate 5, Interstate 90

ID

Idaho

Intermodal Facility

A site consisting of tracks, lifting equipment, paved and/or unpaved areas, and a control point for the transfer (receiving, loading, unloading, and dispatching) of trailers and containers between rail and highway and between rail and truck to/from marine modes of transportation.

Intermodal Ports

Intermodal ports are those ports that move containers from ship to rail, producing unit trains of containers to be transported to the inland destinations.

Intermodal Trains

Intermodal trains are significant consumers of rail capacity because they are long, move at speeds similar to passenger trains, and require priority of movement. The railroads market these trains at premium prices. They generate substantial revenue for the railroads.

Intermodal Transfer Facility

Intermodal transfer facilities are locations where freight is transferred between freight modes.

IRS

Internal Revenue Service

ISTEA

Intermodal Surface Transportation Efficiency Act

ITS

Intelligent Transportation System

KCS

Kansas City Southern

KFR

Kettle Falls International Railway

L&I

Labor and Industries

LRFA

Local Rail Freight Assistance Program

LRT

Light Rail Transit

LSC

Longview Switching Company

Mainline Switching

Mainline switching is the process of picking up and setting out individual cars or sets of cars for specific shippers and receivers while the train is “parked” on the mainline; this blocks the mainline and reduces line and system capacity.

Miles of Road

Miles of road is a linear measure of distance that does not consider the number of tracks. Track miles is greater than miles of road. For example, if a rail segment has two mainlines, then the number of track miles is double the number of miles of road.

MOU

Memorandum of Understanding

MP

Milepost

MPO

Metropolitan Planning Organization

MRL

Montana Rail Link

MSN

Meeker Southern Railroad

MVT

Mount Vernon Terminal Railroad

NEC

Northeast Corridor

NEPA

National Environmental Policy Act

NHS

National Highway System Designation Act of 1995

NIM

North Intermodal Yard

NOx

Nitrogen Oxide

Northern Tier

The Northern Tier refers to the rail corridor that runs through the eight neighboring states from the Pacific Northwest to Chicago. These states are Washington, Oregon, Idaho, Montana, North Dakota, Minnesota, Wisconsin, and Illinois.

NS

Norfolk Southern Railway

NTSB

National Transportation Safety Board

ODOT

Oregon Department of Transportation

OLI

Operation Lifesaver, Inc.

Operated Miles

Operated miles include the miles leased by the owner railroad to another railroad that operates on the owned line. Operated miles are greater than owned miles.

OR

Oregon

O-WR&N

Oregon-Washington Railway and Navigation

PABs

Private Activity Boards

Panamax ships

Panamax ships are ships that are physically able to pass through the current width of the Panama Canal. These ships can not be any wider than 106 feet.

PCC

Palouse River and Coulee City Railroad

PIM

Pierce County Terminal Intermodal

PL 110-432

Public Law 110-432, approved as HR 2096

PLHD

Public Lands Highway Discretionary Program

PM₁₀

Particulate Matter

PMV

Port Metro Vancouver

PNRS

Projects of National and Regional Significance

PNW

Pacific Northwest

PNWRC

Pacific Northwest Rail Corridor

Poor Physical Condition

Track that is in disrepair from wear and tear or has deteriorated due to lack of maintenance.

POVA

Pend Oreille Valley Railroad

PPR

Port of Prince Rupert

Practical Capacity

Practical capacity is the highest activity level at which the line can operate with an acceptable degree of efficiency, taking into consideration unavoidable losses of productivity.

PRIIA

Passenger Rail Investment and Improvement Act of 2008

PRP

Program, Park Roads and Parkways Program

PSAP

Puget Sound and Pacific Railroad

PSE

Puget Sound Energy

PSRC

Puget Sound Regional Council

PTC

Positive Train Control

PTRR

Portland Terminal Railroad

PVJR

Portland Vancouver Junction Railroad

Rail Bank

Freight Rail Investment Bank Program

Railroad Switch

A mechanical installation enabling railway trains to be guided from one track to another at a railway junction.

RCW

Revised Code of Washington

Reporting Mark

A reporting mark is a two- to four-letter alphabetic code used to identify owners or lessees of rolling stock (e.g. rail car) and other equipment used on the North American railroad network. The marks are stenciled on each piece of equipment, along with a one- to-six-digit number, which together uniquely identifies every piece of equipment. For example, this allows rail cars to be tracked by the railroad they are traveling over, which shares the information with other railroads and customers.

RND

Railroads for National Defense

Ro-ro

Roll-on, roll-off

RoadRailers®

A specialized truck trailer where the trailer can be attached to rail wheels to haul along the railroad without the use of a separate rail flat car.

RR

Railroad

RRIF

Railroad Rehabilitation and Investment Financing

RS

Royal Slope Railroad (also known as the Royal Slope Line)

RSAC

Railroad Safety Advisory Committee

RSIA

Rail Safety Improvement Act of 2008

RTPO

Regional Transportation Planning Organization

SAFETEA-LU

Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users

SDDC

Military Surface Deployment and Distribution Command

SEPA

State Environmental Policy Act

SEROps

Southeastern Rail Operations Study

Short-Line Railroad

These are railroads that are regional or local (Class II and Class III) that provide service in support the Class I railroads. Many times the short-line railroads transport the cargo a short distance from the Mainline hub to its final rail destination on a specific spur or to a intermodal facility.

SI

Spokane International Railroad

SIB

State Infrastructure Bank

SIG

Seattle International Gateway

SIM

South Intermodal Yard

SO₂

Sulfur Dioxide

SP

Southern Pacific Railroad

SP&S

Spokane, Portland, and Seattle Railway

state

Washington State

STB

Surface Transportation Board

STRACNET

Strategic Rail Corridor Network (Department of Defense)

STP

Surface Transportation Program

Switching Railroad

A railroad engaged primarily in switching services for other railroads.

TCRY

Tri-City and Olympia Railroad

TEA-21

1998 Transportation Equity Act for the 21st Century

Terminal Railroad

A railroad engaged primarily in terminal services for other railroads.

TERR

Tacoma Eastern Railroad

TEU

Twenty-Foot Equivalent Unit measuring 20 feet long by eight feet high by eight feet wide.

TIFIA

Transportation Infrastructure Finance and Innovation Act

TIGER

Transportation Investment Generating Economic Recovery

TMBL

Tacoma Municipal Belt Line

TPA

Transportation Partnership Account

Train Volumes

Train volumes (average trains per day) reflect business activities that are fluctuated sharply and sensitive to economic climate. Although the long-term trend is upward, the short-term trend could drop significantly.

Transloading

The process of transferring a shipment from one mode of transportation to another.

Transloading facility

A facility where the transferring of a shipment from one mode of transportation to another takes place.

TRMW

Tacoma Rail Mountain Division

TTCI

Transportation Technology Center, Inc.

TTPO

Tribal Transportation Planning Organization

TWC

Track Warrant Control

UP

Union Pacific Railroad

U.S.

United States

USACOE

U.S. Army Corps of Engineers

USC

United States Code

USDOC

U.S. Department of Commerce

USDOT

U.S. Department of Transportation

USFS

U.S. Forest Service

UTC

Utilities and Transportation Commission

VMT

Vehicle Miles Traveled

WA

Washington

WAC

Washington Administrative Code

WCCC

West Coast Corridor Coalition

WIR

Washington and Idaho Railway, Inc.

WPPA

Washington Public Ports Association

WRS

Western Rail Switching

WSDOT

Washington State Department of Transportation

WSTC

Washington State Transportation Commission

WTP

Washington Transportation Plan

