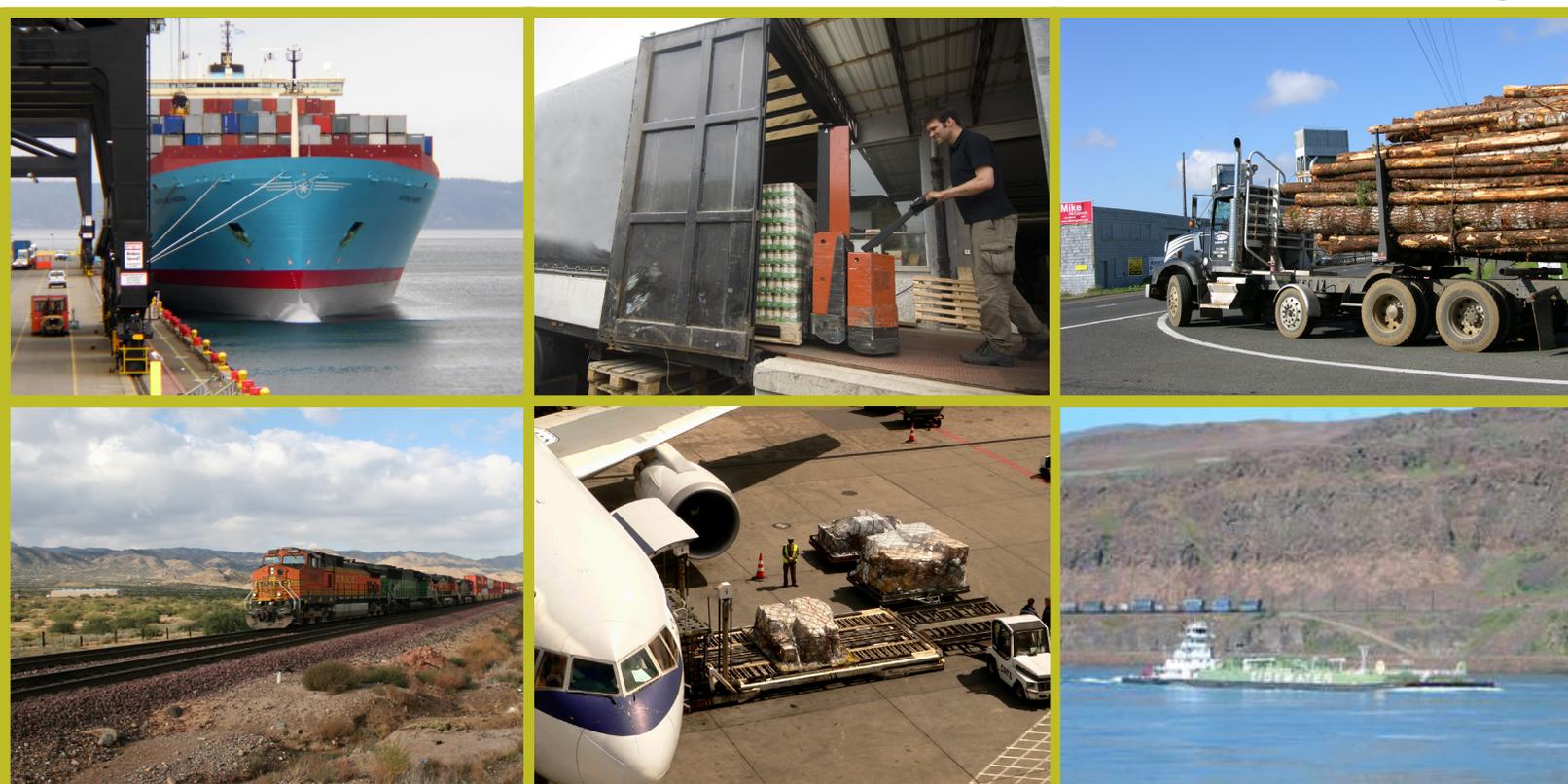


Washington State Freight Advisory Committee

Washington State Freight Trends & Policy Recommendations for Air Cargo, Freight Rail, Ports & Inland Waterways, & Trucking



May 2014

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Washington State Freight Advisory Committee

The Freight Mobility Strategic Investment Board (FMSIB) was created by the Legislature in 1998 (RCW 47.06A.030) to identify and recommend investments that improve freight movement and mitigate barriers on strategic state corridors, grow jobs and the economy, and bolster Washington as a leader in international trade.

In January 2013, FMSIB created the Washington State Freight Advisory Committee (WAFAC) as directed by Section 1117 in MAP-21. The WAFAC is responsible for advising the Washington State Department of Transportation (WSDOT) on its *State Freight Plan* that will be submitted to the U.S. Department of Transportation (USDOT).

Section 1117 recommends the Advisory Committee include representatives from a cross-section of public and private sector freight stakeholders, including ports, shippers, carriers, freight-related associations, the freight industry workforce, the state transportation department, and local governments. Members of this broad-based Advisory are listed to the right.

The WAFAC also actively sought input from retail, wholesale, service industry, manufacturing, agricultural, and environmental stakeholders. These stakeholders helped inform and shape the Committee's understanding of the issues and recommendations.

At regular meetings throughout 2013 and into 2014, the WAFAC and freight stakeholders presented and discussed industry trends, challenges, and the needs facing their constituents at the international, national, state, and local levels.

Washington State Freight Advisory Committee

Private Sector: Chair Dan Gatchet (FMSIB Chair)

Aerotropolis: Lawrence Krauter (Spokane International Airport)

Cities: Pat Hulcey (Fife); Tom Trulove (Cheney - alternate)

Counties: Dave Gossett (Snohomish); Al French (Spokane - alternate)

Maritime: Mike Moore (Pacific Merchant Shipping Association); Jordan Royer (alternate)

Metropolitan Planning

Organizations: Charlie Howard (Puget Sound Regional Council)

Ports: John Creighton (Seattle); Don Meyer (Tacoma)

Rail: Terry Finn (BNSF)

River Commerce: Larry Paulson (former CEO, Port of Vancouver)

Regional Transportation Planning

Organizations: Mark Kushner (Benton-Franklin Council of Governments)

Tribal: Chad Wright (Marine View Ventures, the economic development arm of the Puyallup Tribe of Indians)

Trucking: Sheri Call (Washington Trucking Association)

Workforce: Dan McKisson (ILWU Puget Sound District Council)

WSDOT: Katy Taylor

Freight Folios

The WAFAC determined that the compilation of the identified trends, challenges, recommendations, and freight inventory presented in these folios has multiple benefits: it meets the requirements of advising the State Freight Plan, and it provides valuable information to inform and advise Washington State policymakers at the national, state, and local levels. This document will also be submitted to the Washington State Transportation Commission in support of the Washington Transportation Plan update.

This information is captured in the folios that follow, beginning with **Washington: The State of Freight**, which discusses the importance of trade to the state and the need for continued mobility and an integrated, well-maintained transportation system. There are also folios specific to the following:

- **Air Freight**
- **Ports and Inland Waterways**
- **Rail**
- **Trucking**

Each folio presents findings and recommended policy actions. However, not every finding has a specific action. There are several identified trends or challenges for which recommended solutions have not yet been identified.

Road, Waterway, & Rail Freight Project Inventory

The WAFAC also coordinated and conducted a first ever inventory of rail, waterway, and road freight projects. Because this is a first of its kind, future updates of the State Freight Plan will provide more detailed information. A significant challenge in reviewing road projects was determining which projects primarily benefit freight in comparison to projects that primarily benefit general purpose mobility.

This inventory was conducted in partnership with WSDOT, Metropolitan Planning Organizations (MPO), Regional Transportation Planning Organizations (RTPO), the Washington Public Ports Association, the Washington Trucking Associations, and the Pacific Northwest Waterways Association.

Other Participants

The Boeing Company: Panel
FedEx: Jeff Greer, Regulatory Affairs

Futurewise: Tim Trohimovich
Director of Planning & Law

The Nature Conservancy (Washington): Mo McBroom, Director of Government Relations, Bill Robinson, State Government Relations Director

Paccar, Inc.: Paul McCormick, Director of Logistics

Pacific Northwest Waterways Association: Kristin Meira, Executive Director

SuperValu: Chris Rucker, Transportation Manager

Washington Public Ports Association: Eric Johnson, Executive Director

Washington State University (Agricultural Trends): Dr. Peter Tozer, Research Associate

Whatcom Council of Governments (Border Crossing): Gordon Rogers

Washington: The State of Freight

Overview

As one of the most trade dependent states in the nation per capita, Washington relies on an efficient freight transportation network. In 2013, Washington exported merchandise worth \$82 billion¹ and it is estimated that \$37 million of freight moves on Washington roadways every hour of every day.² Our freight transportation system plays a critical role in fostering economic vitality and competitiveness in regional and global markets.

Mobility of people and goods is critical to our economy. A reliable and well-functioning transportation system provides return on investment through job creation, shared prosperity, and enhanced competitiveness. Given the global nature of today's world, continuous investment in the transportation system is a critical requirement for retaining and attracting companies to locate in Washington.

Goods are shipped into, out of, and around Washington by truck, rail, air, barge, and water. Manufacturers such as The Boeing Company and our state's agricultural producers require an effectively networked system to get their goods to market.

This folio presents key findings and policy recommendations that address all modes and owners of the transportation system. The accompanying folios provide additional information and policy recommendations by transportation mode.

Washington State is a Major Exporter

In 2012, Washington surpassed California as the nation's top exporting partner with China (\$14.1 billion versus \$13.9 billion in total merchandise).

In 2013, Washington exported \$16.7 billion of merchandise to China. Transportation equipment made up 48.7%, followed by agricultural products at 31.9%.

Washington exported \$8.9 billion to Canada and \$7 billion to Japan.

Source: <http://tse.export.gov/>

¹ Exports of NAICS Total All Merchandise from Washington, Foreign Trade Division, U.S. Census Bureau.

² WSDOT, Washington State Freight Plan, Presentation to the Transportation Improvement Board, January 30, 2014. <http://www.wsdot.wa.gov/NR/rdonlyres/2C300370-AC1B-41FF-83A3-ECACF47E8842/0/WASfFtPlanbriefingtoTIB114.pdf>

Key Findings

1. **All modes are part of the global freight supply chain, which is critical to Washington's economy.**
 - Regulations should not interfere with modal competition.
 - Government policy that favors modes is detrimental to freight supply chain requirements. Markets determine the mode used.
 - Maintaining and increasing the national and international share of freight moving through Washington is important to the economy, and requires investment in all modes.
2. **Washington State's population is expected to increase by over 2 million people (for a total of 8.8 million) by 2040, which will put pressure on all existing transportation facilities.**
 - Congestion has a direct and adverse impact on the freight supply chain.
 - Regional distribution centers have been relocated or divided in order to service urban areas.
 - Unpredictable congestion means scheduling more time (and added cost) for deliveries.
 - Employing drivers is more difficult because they are typically paid for deliveries, not wait times.
 - Roadway capacity along I-5 from Snohomish County south to Pierce County and in Clark County near the Columbia River Crossing is already constrained and will face increased congestion and delays.
3. **Consistent and stable federal and state funding is necessary to address freight infrastructure needs and broader transportation investments.**
 - The federal Highway Trust Fund is forecasted to be negative in 2014, creating an investment crisis for both freight and other federally funded transportation projects.
 - The federal Harbor Maintenance Trust Fund and Airport Improvement Program (AIP) are examples of programs where funding has been diverted to support other federal uses.
 - The federal Inland Waterways Trust Fund will need additional funding in order to maintain an aging infrastructure.
 - Section 214 of the federal Water Resources Development Act of 2000 allows the Secretary of the Army Corps of Engineers to accept and expend funds contributed by non-Federal public entities. This has reduced permit wait times and backlogs for US Army Corps projects because it allows ports to fund additional Corps staff. However, it is not a permanent authorization.

- Freight projects have benefited from federal TIGER grants. However, the program is subject to funding uncertainty.
- The federal Airport Improvement Program (AIP) is a principle source of funding for capital improvements at airports and is drawn from the Airport and Airway Trust Fund. By 2015, the program is projected to be nearly 27% lower in constant dollars than the 2006 peak year. Another setback occurred in 2013 when Congress diverted \$253 million from the AIP to pay for FAA operations and to mitigate FAA furloughs. Continued funding uncertainty for AIP in annual Congressional appropriations bills makes planning and project development difficult.
- Federal Section 130 of the Highway Safety Improvement program is valuable, but there are limited sources of funds to address road and rail safety conflicts.
- The federal Short-line Tax Credit, which provides significant relief for short-line railroad companies, has not been reauthorized. Effective capital spending and planning requires a multi-year horizon to be effective and efficient.

In Washington State:

- A well-maintained road transportation system is important for all users, including freight movement, especially when shipping perishable agricultural products. The last two state transportation funding packages have funded new projects without commensurate preservation and maintenance funding.
 - More funding is needed for at-grade rail crossing improvements and “first and last mile” projects that target system gaps and reduce increasing traffic delays in communities throughout the state. For example, FMSIB receives \$12 million per biennium to fund freight projects, yet addressing at-grade rail crossings can easily cost \$15 million to \$30 million per crossing.
 - Heavy haul industrial corridors are defined in state law and have limited application for the purposes of moving freight over certain weight limits within or adjacent to port properties or on certain state highways. Additional resources are needed to maintain these corridors.
 - Freight must compete with other transportation projects and modes for funding and right of way.
4. **Many freight industries are both price sensitive and mobile. New or increased taxes or fees (user fees, congestion pricing, etc.) that add to the cost of doing business could divert business away from the state.**
- At a minimum, any new fees or taxes should be reinvested in state transportation infrastructure to ensure the state remains competitive.
 - New tax or fee proposals should demonstrate the value and benefit of the proposed infrastructure for freight.

5. **Market and regulatory forces are producing shifts to greener technology. These shifts produce costs, some of which will be passed on to consumers.**

- Each new generation of clean-diesel locomotives purchased by Class I railroads is 15 percent more efficient than the previous generation. Class I railroads also have instituted pilot programs to test alternative fuels, such as ultra-low-sulfur, biodiesel, and liquid natural gas. BNSF, for example, has introduced all-electric, emissionless gantry cranes in select yard locations in its system.
- Trucks are using ultra low sulfur diesel and the latest generation diesel engines are the cleanest burning in trucking history. The liquid natural gas (LNG)/compressed natural gas (CNG) fueling network is experiencing growth nationwide. Portions of the trucking industry are converting to natural gas either by retrofitting their current engines or by purchasing natural gas engines during normal fleet replacement.
- Ocean carriers are reducing emissions through slow steaming which burns 40% less fuel, use of higher capacity vessels, better hull coatings which improve movement through the water, and by phasing in cleaner engines and order of magnitude cleaner fuels. Ports have helped vessel operations reduce dockside emissions by using cleaner fuels or providing plug-in technology and terminal operators are implementing emissions reduction measures for cargo handling equipment on marine terminals. In addition, vessels are exchanging ballast water, installing ballast water treatment, and minimizing discharges in port — all to reduce chances of invasive species introduction. Lastly, oil spill prevention through international, national, and local and industry best practice efforts have led to a zero spills record from cargo ships transiting in and out of Puget Sound ports.
- Ports continue to make investments to reduce their impact on the environment.
 - With the support of a federal grant, The Port of Tacoma is partnering with Tacoma Rail to repower or replace a locomotive with a cleaner engine and idle-reduction technology to reduce emissions by more than 50%.
 - The Port of Seattle has a Clean Truck Program and is systematically replacing older heavy-duty drayage trucks with trucks powered by 2010 or newer certified engines.
 - Other investments include at berth clean fuels, and switching to electrical power when a ship is at berth.
- SeaTac Airport has created the Voluntary Airport Low Emissions Program (VALE). VALE will allow aircraft to hook up to pre-conditioned air provided by the airport at each gate. Instead of aircraft running their engines for air circulation, this new system will utilize electric heating and cooling for the airplane cabin.

6. **Freight provisions in MAP-21 (and its reauthorization) can be improved to better recognize the intermodal nature of freight mobility and international trade.**
 - Currently MAP-21 requires the establishment of new freight provisions, but these remain unfunded programs.
 - MAP-21 includes a Priority Freight Network (PFN) capped at 27,000 centerline miles, which has resulted in USDOT releasing a draft network that is disconnected and excludes much of the nation's surface transportation system that should be considered of primary freight importance.
 - The draft PFN as proposed by USDOT is limited to roadways, despite widespread acknowledgment that the nation's freight and goods transportation system is a multimodal integration of international and national trade corridors, air cargo, roads and highways, rail, marine cargo facilities, and inland waterways.
 - The PFN needs to be defined so that it ensures future inclusion of the other freight modes that comprise the nation's freight and goods transportation system.

7. **Cities and counties have inadequate revenue sources to keep up with need for investment.**
 - Freight investments tend to be of national, state, or regional economic significance, yet funding for freight infrastructure other than for railroads relies heavily on city and county budgets.
 - Jurisdictions may be reluctant to fund freight projects that primarily benefit freight products headed to other destinations.
 - An inventory of first priority and emerging at grade priorities has identified \$1 billion in at-grade rail crossing needs in urban areas. Costs to address at-grade crossings exceed many city and county budgets.
 - Local jurisdictions are sales tax dependent which has implications for freight because it tends to favor commercial over industrial zoning.
 - Counties have even fewer revenue options than cities.
 - Transportation taxes related to trucking go to the state; there is limited assistance for truck impact mitigation at the city level, except through programs like FMSIB.

8. **There is a gap in Washington state tax policy to support the efficient movement of freight at a regional or state level.**
 - There are inadequate incentives or mandates for cities and counties to preserve critical industrial properties. For example, the state sales tax structure makes a car dealership more attractive to a jurisdiction than an industrial use that would be subject to a property tax cap.
 - The legislature typically has not provided cities and counties with the authority to levy taxes or fees to help fund transportation investments.

9. There is inadequate land use policy to protect strategic freight corridors, industrial lands, and port districts, and additionally a need to protect economic interests of the entire state.

- Counties and cities that plan under The Growth Management Act (GMA) are required to balance industrial land uses with multiple elements such as parks and housing in their comprehensive plans. Limited right of way and decreasing developable land in some urban areas can produce conflicts about its highest and best use. These conflicts are most acute with industrial, water-dependent freight terminals.
- GMA requires comprehensive plans for cities to include a container port element if the marine container port in their jurisdiction exceeds \$60 million in operating revenues. It is optional for cities that have container ports with annual operating revenues over \$20 million (RCW 37.70A.085).
- Inconsistent zoning from jurisdiction to jurisdiction impedes freight movement. For example, local regulations that prevent large trucks from entering urban areas at certain hours of the day hinder efficient freight movement.
- First and last mile connectors are vital to the freight supply chain, but are not defined in state or federal law.
- State law defines strategic freight corridors by tonnage volume: highways – 4M tons annually; rail – 5M tons annually; waterways – 2.5 M tons annually (RCW 47.06A.010). This is the FMSIB investment criteria, but it is limited in the context of freight corridor preservation.
- State law defines transportation facilities of statewide significance, which includes a subset of the state-owned highway transportation system, interstate, freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services related to marine activities affecting international and national trade, including key freight transportation corridors serving these marine port facilities. (RCW 47.06.140).

10. There are 29 federally recognized tribes in Washington with a variety of interests and local agreements; many have land near major interstates and state highways.

- Many tribes continue to be successful in economic development activities allowing them to engage in other activities including land acquisition.
- Marine View Ventures (Economic Development arm of the Puyallup Tribe) and their business partners SSA have a partnership to develop a future freight terminal on Indian lands for a 200 acre facility.
- Many tribes have a strong preservation predilection to protect cultural and natural resources and may oppose large infrastructure investments due to these reasons.

11. Routing, queuing, and other changes have improved the flow of freight, but border gateways still need attention to further facilitate goods movement.

- The International Mobility & Trade Corridor Program (IMTC), a U.S.-Canadian coalition of government and business entities, identified and promoted improvements to mobility and security for the four border crossings that connect Whatcom County, Washington State, and the Lower Mainland of British Columbia. Together, these four crossings are called the Cascade Gateway.
- Cascade Gateway truck volumes have increased after declines during the recession, but have not returned to early 2000s volumes.
- The U.S. Customs and Border Protection's Vehicle and Cargo Inspection System (VACIS) screening facility impedes movement in Blaine, Washington. Trains are over one mile long and when stopped they block traffic at several intersections.

12. Growth in air freight is fueled by increased aerospace production, high-tech and bio-tech production, and specific agricultural products from Central and Eastern Washington.

- Boeing expects air cargo growth to triple over the next 20 years.
- Routes associated with Asia will experience the highest growth rates over the next twenty years: China, Taiwan, Japan, Hong Kong, and South Korea are major export markets.
- Road feeder service into the airport is important to Washington airports; air freight arrives by aircraft feeder service or is trucked between the airport and communities.

13. Increased rules and regulations can add costs and hinder competitiveness.

- Federal law prohibits states from increasing the size and weight of combination vehicles beyond that allowed in 1991. In Washington, combination vehicles are limited to two trailers, but three are allowed in Idaho and Oregon. Drivers entering Washington must stop and break down the freight, which takes time and reduces delivery efficiency.
- Truck trailer length is limited to 28 feet in Washington, with larger combinations limited to intrastate travel and short connections from off-ramps. Other states allow 33 feet, which results in greater utilization and fewer trucks.
- Better coordination among and between state and federal agencies is needed on multiple issues, including environment, dredging, and construction:
 - Federal agencies such as FHWA, FAA, and HUD require their own NEPA process. This can lead to project delays or cancelling of state tax funded projects.
 - Projects requiring both state SEPA and federal NEPA reviews are time consuming and costly.

- Some regulations redirect capital away from terminal efficiency improvements, such as investing in at-grade separations and port terminals. This is an especially acute issue with the Industrial Stormwater General Permit (ISWGP), which is challenging for port tenants and creates an impact on port competitiveness:
 - Washington's ISWGP is more stringent than other west coast states.
 - Washington's ISWGP corrective actions escalate more rapidly than other west coast states.
 - Marine Terminal Operator tenants face immediate and uncertain capital outlay for Best Management Practices and Treatment Technologies yet it is unclear if the proposed treatment devices will reduce pollutant levels below required benchmarks.
 - Marine terminals as a sector are unable to fully comply with current stormwater benchmarks jeopardizing the ability to continue operations without reasonable compliance options. This threat to the ability to move imports and exports on and off ships is compounded by the additional uncertainty of a new five-year permit due to be implemented in 2015. If efforts to obtain reasonable compliance options fail, then marine terminals will either shut down or be subject to significant daily penalties and citizen lawsuits.
- Recent use of SEPA to include environmental impacts beyond the jurisdiction of the project site is a significant departure from standard planning and policy work in Washington. The expanded scope of review is creating uncertainty when considering expanding existing infrastructure or when proposing new projects.

Freight Produces Jobs

Washington's transportation industry supports 1 million plus jobs in freight dependent sectors such as agriculture, forestry, construction, and manufacturing – producing nearly \$434 billion in gross business income.

Source: Association of Washington Businesses 2013 report.

Policy Recommendations

Federal Government

1. The next authorization of the Federal Transportation Act should include dedicated freight transportation funding.
 - a. Dedicated transportation funding should not come at the expense of current programs.
 - i. Consistent, stable federal funding is needed and is preferable to increased federal match dollars as an incentive. For freight projects, an increase of 5% for federal matching funds is often insignificant relative to overall project funding.
 - ii. Federal match percentage increases for one program typically result in a commensurate reduction in percentage match (or available Federal funds) at the state level for a different transportation program.
 - b. Work with Congress and USDOT to improve the freight provisions in MAP-21 by raising the 27,000 mile threshold in the Primary Freight Network (PFN). In the designation of the PFN and in National Strategic Freight Planning, require USDOT to use multimodal methodology and assign higher priority to international trade corridor gateways (including ports, first/last mile connectors, and recognize multimodal hubs and intermodal connectors).
 - c. Work with Congress to support funding streams for dedicated freight-related programs such as TIGER, Projects of Regional and National Significance, and other programs dedicated to the multimodal-multi-jurisdictional freight mobility improvements.
 - d. Work with Congress to re-authorize the Short-line Tax Credit on a minimum of a five-year cycle to ensure short-line capital programs can be properly developed and efficiently administered.
 - e. Work with Congress to expand Section 130 of the Highway Safety Improvement program for grade crossing improvements and separations.
2. Pass the Maritime Goods Movement Act to strengthen the competitiveness of American ports and address issues with the Harbor Maintenance Tax.
3. Increase revenue to the Inland Waterways Trust Fund so it can adequately pay for major construction and rehabilitation projects. This could be done by increasing the existing diesel tax, imposing lockage or towboat fees, or revising the cost share formula.
4. Work with Congress to make Section 214 of the Water Resources Development Act of 2000 permanent to address ongoing permit wait times and backlogs.
5. Work with the FAA and Congress to allow Airport Improvement Program (AIP) grants to be available to air cargo airports for intermodal projects that meet regional freight mobility objectives that support air freight activity. AIP grant spending levels should be protected and used only for aviation-related purposes.
6. The U.S. Customs and Border Protection's Vehicle and Cargo Inspection System screening facility should pursue new technology, such as "Rapiscan," which can allow up to 35 mph scanning speed.

7. Create an Office of Freight Mobility and Federal Compliance within USDOT to facilitate prioritization of freight projects of national significance and to expedite NEPA permitting.
8. Work with federal agencies for standard regulations for trailer size and weight limits.
9. Work with Congress to revise the definition of interstate travel to allow 18-20 year old drivers to drive the in-state leg of an interstate shipment. This would help alleviate the state and national driver shortage and create a career path.

State Government

1. Enact a state transportation package with significant increases in:
 - Preservation and maintenance;
 - Dedicated freight funding to address at-grade rail crossings, first and last mile connectors, and heavy haul corridors.
2. Stormwater Recommendations:
 - Clarify compliance and cost requirements through reasonable application of an all known and reasonable technologies (AKART) approach matched to marine terminals to allow for cost effective mitigation while providing for continued operations of marine terminals.
 - Synchronize permit requirements with west coast states, and with west coast Canadian ports to better address competitive disadvantages.
 - Compare permit requirements with east coast and Gulf states with marine terminals to better address competitive advantages.
 - Compare with municipal stormwater requirements to avoid dramatically different requirements for waterways.
 - Ensure state funding, such as Model Toxics Control Act, remains available to help address stormwater permit requirements.
 - Place a reasonable maximum cap on private sector stormwater investments based on cost effective proven and readily available technologies.
3. Work with the Department of Ecology to create a parallel review process with NEPA, and limit a project's impact area to the location of the project.
4. SEPA categorical exemptions should be routinely updated to better match with NEPA categorical exclusions. (The Department of Ecology is undertaking rulemaking at the time of this publication.)
5. Change state tax policy to level revenue playing field between sales tax and property tax to incentivize protection of industrial lands.
6. Use the Port Element of City Comprehensive Plans (RCW 36.70A.085) to help define and protect the core area of port and port-related industrial uses within the city and ensure efficient freight access.
 - Ensure that the Port Element is reviewed regularly (every 2-3 years) and updated as needed.

Air Freight



Overview

The state's aviation system is critical for freight movement. High-value, time-sensitive goods move through Washington's airports, which play a key role in the state's service sector. Air cargo moves by truck between airports and warehouses, making an efficient road system integral to the timely integration of cargo and aircraft.

Washington exports more than any other state, and nationally, air freight accounts for about 24% of U.S. international merchandise trade by value. It is particularly essential for shipping high-value and perishable products and is supporting the remarkable growth of e-commerce.

Despite the short-term outlook being relatively low-growth, the forecasts made by industry analysts generally agree that worldwide air cargo will grow 3% to 5% per year over the next 20 years and that Asia will continue to lead the world in air cargo volumes. The FAA's forecast for domestic growth is less than 1% per year.

More than 160,000 jobs in the state are in some way connected to air cargo, producing approximately \$8 billion in wages. Although eight airports in Washington reported cargo activity in 2012, nearly all of the activity is concentrated at three: Seattle-Tacoma International Airport (51% of air cargo in 2011), Boeing Field/King County International Airport (31%), and Spokane International Airport (18%).³ Other airports handling air cargo included: Bellingham International, Grant County International, Pangborn Memorial, Tri Cities, and William R. Fairchild International.

Sea-Tac Airport 2012 Activity Report

Sea-Tac averages 10-12 freighter flights to Asia per week on three foreign flag freighter operators (Korean, China Airlines, EVA). Cargo is also flown in the belly of passenger planes. The Airport has approximately 680,000 SF of leasable space in 15 buildings and over 3 million SF of aircraft ramp space.

- Sea-Tac handled 237,211 metric tons of air freight
- FedEx carried 42.5% of all air freight, followed by Alaska Airlines at 10.5% and Delta Airlines at 9.5%
- 56.7% of air freight was destined for the contiguous U.S., followed by 20.5% to Asia, and 14.4% to Europe

Source:
www.portseattle.org/About/Publications/Statistics/Airport-Statistics/Documents/2012-Airport-Activity-Report.pdf

³ WSDOT Washington State Freight Mobility Plan: Task 2 Interim Data Report. January 2014.
<http://www.wsdot.wa.gov/NR/rdonlyres/881F4A29-E45A-46F6-85E2-D5B1B7510EB3/0/WashingtonStateFreightMobilityPlanTask2InterimDataReport.pdf>

Key Findings

1. **The federal Airport Improvement Program (AIP) is a principle source of funding for capital improvements at airports. A portion of AIP funding is reserved for projects that enhance air cargo facilities.**
 - The AIP funds general airport infrastructure on which passenger and cargo flights depend.
 - AIP expenditures are drawn from the Airport and Airway Trust Fund, which is supported by taxes on air freight, as well as passenger ticket taxes, fuel taxes, and other fees.
 - Maintaining the integrity of the AIP program for airport infrastructure use has been a top priority for airports. The 2012 FAA reauthorization bill continued a downward trend in funding, and by 2015 the program is projected to be nearly 27% lower in constant dollars than the 2006 peak year.
 - Another setback occurred in 2013 when Congress diverted \$253 million from the AIP to pay for FAA operations and to mitigate FAA furloughs. This was at the expense of needed airport improvements.
 - Continued uncertainty of the funding level provided for AIP in annual appropriations bills passed by Congress makes planning and project development difficult.
2. **Safety and security are top priorities for aviation; stringent security requirements govern the movement of air freight.**
 - One hundred percent of belly cargo must be screened before loading on passenger planes. Congress is contemplating similar measures for cargo moved on freighter aircraft.
 - Maximizing the efficiency of air cargo networks requires greater consideration of security issues than is necessary for other transportation modes.
 - There is a need for TSA and CBP efforts to harmonize international air cargo security without disrupting the global air cargo supply chain.
3. **Air Cargo is an important component of freight movement.**
 - Boeing expects air cargo growth to triple over the next 20 years.
 - Routes associated with Asia will experience the highest growth rates over the next 20 years.
 - Currently at Sea-Tac, there are 10 to 12 freighter flights to Asia each week in addition to cargo carried by passenger planes, which accounts for over half of Sea-Tac's Asia trade volumes.
 - Belly cargo on passenger planes is provided by eight airlines flying to seven destinations in the Middle East and Asia.

- Currently, there is surplus capacity (in freighter aircraft and in the belly holds of passenger aircraft) and lower demand. While experts see the air cargo market recovering in the next five years, they also point out that the excess capacity is forcing down pricing and the yields will not be sufficient to be profitable.
 - Air freight capacity issues are most pronounced when there is a short shipping window and insufficient equipment assigned to the routes. For example, there is an inability to meet demand to ship Washington cherries to Asia due to the three week shipping window.
 - The cost of security screening, personnel and facilities favors major air gateways due to economies of scale.
 - For airports to accommodate passenger and air cargo growth they need a certain amount of capacity available for immediate use in terms of aircraft parking apron, passenger, and air cargo facilities.
 - Road feeder service into the airport is important to Washington airports; air freight arrives by aircraft feeder service or is trucked between airport and communities.
- 4. WSDOT Aviation has been historically and chronically underfunded for planning, development and infrastructure investment, even for state-owned facilities.**
- WSDOT is actively engaged in shaping an economic development program.
 - In April 2012, WSDOT Aviation, in partnership with the FAA, began aggressively implementing a new program, the Statewide Capital Improvement Program (SCIP), which targets state and federal resources in a more strategic way by better identifying and prioritizing aviation related projects.
 - In March 2013, WSDOT Aviation Division began a series of visits to commercial service, air cargo capable airports to better understand their programs, challenges and opportunities.
 - In January 2014, as part of the WSDOT Aviation Airport Investment Study, WSDOT has been able to clarify the need at airports across the state for investment in economic development projects.
 - This series of events, and subsequent partnering and stakeholder outreach, will lead to policy and programmatic changes to address airport revenue-generating infrastructure needs currently ineligible for FAA and WSDOT Aviation grant funds.
 - The WSDOT Aviation System Plan examines airports across the state, as nodes of the state's air transportation system, to identify inventory and capacity challenges and aviation issues, and to develop system-wide forecasts, policies, and projects. The plan addresses three primary components; Commercial Passenger Service, Air Cargo, and General Aviation. Examining modal connections is part of the plan and ties to other modal system plans such as freight, rail, public transit and highways is a standard project work element, as outlined in FAA Advisory Circular 150/5070-7.

5. **Growth in air freight in Washington State is fueled by increased aerospace production, high-tech and bio-tech production, and specific agricultural products from Central and Eastern Washington.**
 - Air cargo is used extensively to move high-value products used in high value manufacturing in aerospace, high tech, and bio-tech products in Washington State.
 - Air freight is also used for perishable agricultural crops with limited storage life and a built-in market.
 - In 2012, more than \$114 million worth of perishable fruit and vegetables weighing approximately 18,000 metric tons was shipped by air.
 - China, Taiwan, Japan, Hong Kong, and South Korea are major export markets.
 - Fuel prices and facility costs affect competitive pricing as goods need to get to market; as prices become less competitive, producers may exit production.

Policy Recommendations

Federal Government

1. Air freight movement by surface transportation to and from air cargo airports should be considered as part of the Transportation Plans (or equivalent) that are developed at the metro and regional levels as encouraged in MAP-21. MPOs/ RTPOs should consult with airports in their air cargo-related planning activities.
2. Encourage air cargo airports to address intermodal planning that includes freight movement by surface transportation to and from their facilities as part of airport master plans as they are updated.
3. Work with FAA and Congress to allow AIP grants to be available to air cargo airports for intermodal projects that meet regional freight mobility objectives that support air freight activity.
4. Encourage Congress to protect AIP grant spending levels and ensure AIP is used only for aviation-related purposes.
5. Encourage the FAA to measure all air cargo activity, including cargo transported in passenger planes.
6. Congress should strive to achieve a balance between safety and security and an efficient supply chain. Goods movement should not be a secondary priority in this discussion.

Potential JTC Briefing Topics

a. What is the role of the State Aviation System Plan regarding the movement of air freight at the intrastate, interstate, and international market level, including land side connections?

- Is the Aviation System Plan sufficiently definitive about economic benefit and freight mobility?

b. What is the future for air cargo and how do we position the state's aviation facilities to increase opportunities for growth?

c. Beyond capital funding, are there other impediments identified by the market to consider, including taxes, incentives or other issues?

d. What is the most effective way to ensure that intermodal objectives, including intermodal transfer, involving air freight are factored into transportation investments?

7. The NEPA or environmental clearance process should be streamlined and a common environmental clearance process should be adopted across federal agencies with overlapping jurisdiction or funding stakes in aviation projects and intermodal projects in which aviation is involved either directly or indirectly. Having to develop multiple documents for different agencies delays projects and increases costs.

Federal and State Government

1. Treat aviation capacity as a resource and preserve, protect, and enhance it through strategies focusing on airport operations, technology, safety, and land use.
2. Develop comprehensive policies and investment strategies related to freight and aviation to allocate funding in a more efficient way by emphasizing economic corridors.

State Government

1. Convene Joint Transportation Committee (JTC) briefings on Washington State Air Freight needs and how state agencies play a leading role in strategic aviation economic development centered on air freight cargo development and intermodal opportunities.
 - Ensure that the JTC evaluates investment, both public and private, that first supports economic corridors outlined in the 2012 Connecting Washington work.

State Government with local support

1. Identify the need for additional financial resources from the State to be allocated for strategic aviation economic development projects, including those projects that contribute to freight mobility objectives based on a list of projects submitted by local government, airports or through MPOs/RTPOs.
2. Ensure that Airport operators are brought into the membership of the MPO/RTPO as independent subject matter experts on aviation and air freight mobility. If the form of government will not allow the Airport representative to have an independent voting membership, the Airport should at minimum be included on the Technical Committee of the MPO/RTPO.

Potential JTC Work Products

- a. Review primary air freight airport plans to see how air freight moves through airports and identify strengths, weaknesses, and opportunities.
- b. Review the PSRC 2006 'Regional Air Cargo Study' and the 2012 Spokane 'Inland Pacific Hub Transportation Study' that examined the feasibility of establishing the Inland Pacific region as a multi-modal gateway to increase domestic and international commerce.
- c. Identify gaps where traditional local, state, and federal transportation programs which could improve air freight growth in the state do not apply or are multi-jurisdictional and involve challenges created by overlapping agencies, municipalities, programs, and approvals.
- d. Explore the potential for Intermodal Transfer points at or near airports to provide efficient connection opportunities for air freight to surface (rail or truck) transportation.

Ports & Inland Waterways



Overview

Washington has 75 port districts within the state. There are 11 deep-draft ports; seven are located in the Puget Sound, three on the Columbia River and one in Grays Harbor. There are two primary economic waterways in the state, the Puget Sound and the Columbia-Snake River System. The largest ports are the ports of Seattle and Tacoma, which together comprise the second largest load center on the U.S. west coast.

Compared to many other ports in the U.S., several Washington ports have significant advantages, including natural deep water harbors that do not require dredging, a west coast location that is well-situated for trade with Asian markets, and strong connections to the state's truck and rail economic freight corridors. The ports ship cargo in containers, bulk (unpacked bulk cargo includes grains, ore, and cement transported in cargo holds), and break-bulk (non-containerized cargo transported as individual pieces, such as cars).

The Columbia-Snake River system stretches 365 miles inland from the Pacific Ocean and plays a critical role in transporting agricultural, potash, wind turbine components, and other products between Eastern Washington and the Lower Columbia Seaports, as well as between Eastern Washington and the Midwest. More than 35 different commodities move up and down the river system, with about three times as much headed for export compared to import.

Trade with Asia

Many of the state's key trading partners are in Asia. Washington plays a critical role in connecting Asian trade to the U.S. economy.

Washington's 2012 exports to Asia were valued at over \$37 billion.

The Ports of Seattle and Tacoma handle the majority of Washington's international container exports and imports, while our rail corridors, highways, and waterways transport those goods to locations in Washington and beyond.

Key Findings

1. Despite a need for dredging, Harbor Maintenance Trust Fund monies are not fully distributed.

- The Harbor Maintenance Trust Fund (HMTF) is funded by a tax on the value of imports and domestic cargo. It is intended to fund 100% of deep draft and coastal operations and maintenance dredging of designated channels. Since 2003, nationwide, despite unmet dredging needs at ports, only about half of collections have been spent for the intended purpose and the remaining \$8 billion has been redirected to non-transportation federal purposes.
- The HMTF does not provide equitable infrastructure investment at all ports, particularly naturally deep water ports. The Ports of Seattle and Tacoma, which handle large amounts of imported cargo but require little maintenance dredging, receive only a penny for every HMT dollar imposed on shippers moving goods through their port terminals.

Columbia Snake River System

The Columbia Snake River System includes a 110 mile 40-foot deep draft channel that carries 30 million tons of foreign cargo valued at \$15 billion and a 360 mile, 14 foot deep inland navigation channel that carries about 10 million tons of commercial cargo each year valued at \$3 billion.

2. The Harbor Maintenance Tax (HMT) adds to the cost of each container, imported through a U.S. port. In contrast, U.S. imports moving through Canadian ports do not pay the tax.

- An Economic Impact analysis by John Martin & Associates shows that approximately 10,000 jobs in the Puget Sound region are at risk due to cargo diversion to Canadian ports.
- The Federal Maritime Commission found that if the HMT were removed (an average of \$109 per FEU^[2] import container), half of the U.S. cargo that passes through Canadian ports would revert to U.S. ports.
- Canadian government investment and other assistance have redirected U.S. cargo to the Ports of Prince Rupert and Metro Vancouver. These ports are landing a greater market share and a higher percentage of first port calls.
- Some shipping lines have shifted a significant volume of U.S. destination intermodal cargo from Puget Sound ports to Canadian ports. In 1995 Seattle/Tacoma combined had five times the Canadian Gateway west coast market share. Now, they are nearly equal.
- Cargo diversion from U.S. ports reduces HMT collections and threatens the stability of the existing trust fund.

^[2] A 40-foot container, which equals one forty-foot equivalent unit (FEU).

3. **The Maritime Goods Movement Act needs approval. Sponsored by Senators Murray and Cantwell and by Congressman Jim McDermott, it would reform the Harbor Maintenance Tax and strengthen the competitiveness of American ports.**
 - The Act significantly reinvests in port-related maritime-infrastructure and adds more equity to the system, by:
 - Providing for full use of funds collected, increasing investments in the maritime infrastructure and freight mobility
 - Creating a level-playing field and promoting competition
 - Providing return-on-investment for all import cargo, regardless of water or land gateway of entry
 - Replacing the HMT with a Maritime Goods Movement Fee

4. **Section 214 of the Water Resources Development Act of 2000 allows the Secretary of the Army Corps of Engineers to accept and expend funds contributed by non-Federal public entities. However, it is not a permanent authorization.**
 - Since its enactment, Section 214 has reduced permit wait times and backlogs for U.S. Army Corps projects because it allows ports to fund additional Corps staff.
 - Both the House and Senate have included language to make Section 214 permanent in the Water Resources Development Act Reauthorization of 2014.

5. **Ports are currently competing to get 13,000 TEU vessel calls now and plan to compete for larger capacity vessels of up to 19,000 TEUs in the future. These “mega vessels” create surges in container movements further emphasizing the need for efficient freight mobility infrastructure supporting transportation of our containerized exports and imports.**
 - Bigger vessels are expected to unload and load more containers during a single port call resulting in longer time in port. This increases pressure on terminal infrastructure, truck and rail networks, and intermodal load centers to handle higher volumes in a more compressed time period.
 - Carriers will continue to push for efficient terminal operations to reduce cost and improve throughput. It costs roughly \$61,000/day for a ship to stay in port⁴ depending on size and other factors. Overall port call costs, daily vessel operations costs and turn-around times are all keys to being competitive.

Wood Exports

In 2013, Washington exported \$1.1 billion of untreated coniferous wood.

Almost 729,000 metric tons of paper and 243,000 metric tons of logs, lumber, and wood were exported through the Port of Seattle in 2012.

Sources: www.census.gov/foreign-trade/statistics/state/data/wa.html

[/www.portseattle.org/Cargo/SeaCargo/Pages/Exports.aspx](http://www.portseattle.org/Cargo/SeaCargo/Pages/Exports.aspx)

⁴ Transportation Issues Daily, Three Trends that Will Impact the Future of Puget Sound Ports, March 27, 2013

6. The Inland Waterways Trust Fund (IWTF) is underfunded, causing delays in the maintenance, repair, and improvement of our waterways.

- The IWTF is a 20 cent/gallon diesel tax collected from towboats and intended to fund 50% of inland construction and major rehabilitations. The current tax is insufficient to make needed repairs and investments and collections are expected to remain below needs for the foreseeable future.
- The depth and orientation of the Columbia Snake River navigation channel needs to be maintained and aging jetties require major maintenance.
- Pacific Northwest Waterways Association is working with Portland and Walla Walla Districts to anticipate repair needs, protect system reliability, and minimize the need to draw on the IWTF.
- There is concern that the federal permitting process is too slow to keep up with the needs of the Columbia Snake River system.

7. Bulk freight is growing and Washington ports and their supporting landside infrastructure needs to be ready for it.

- Agricultural production in the Pacific Northwest is healthy and growing in several areas.
- The Columbia Snake River System is the third largest grain export gateway in the world. It is the #1 U.S. wheat export gateway and #1 for west coast wood exports and mineral bulk exports, the #2 U.S. soybean export gateway, and #2 for west coast auto imports.
- More bulk commodities, including agricultural products and petroleum, will pass through Washington marine ports.

Wheat in Washington

In 2011, Washington was the fourth largest wheat grower in the nation, producing 167.8 million bushels of wheat grown on 2.3 million acres. Over ten million tons of wheat is exported annually through the Columbia River ports.

8. Local access to and from ports (first and last mile connectors) is vital to maintaining and expanding Washington's market share of national and international trade.

- Ports and trade gateways would benefit from designated, protected, and well maintained freight routes and corridors to move freight traffic between the regional transportation network and gateway facilities.
- Separating trucks from trains at key at-grade rail crossings near ports and gateway facilities will improve freight mobility and connections.
- Ports play a key role in emergency preparedness and national defense yet receive little financial support to fulfill the obligations.

9. **Global supply chains are critical to Washington's economy. Yet government programs and regulations are usually focused on a single mode, creating inefficiencies and affecting modal competition.**
- Regulations should not interfere with modal competitors.
 - Government policy that favors one mode above others is detrimental to freight supply chain requirements.
 - Maintaining and increasing the national and international share of freight moving through Washington is important to the economy, and requires investment in all modes.
 - Freight generally moves on multiple modes, for example, from ship to rail to truck. All modes need to work efficiently for success.
10. **Recent use of SEPA to include environmental impacts beyond the jurisdiction of the project site is a significant departure from standard planning and policy work. Expanded scope of review creates uncertainty about proposed expansions or new projects and dampens efforts to invest and improve infrastructure.**
11. **Increased rules and regulations add costs and hinder competitiveness.**
- Projects requiring both SEPA and NEPA reviews are time consuming and costly. Project delivery costs could be reduced if categorical exemptions were consistent. NEPA categorical exclusions have been updated several times over recent years, whereas SEPA categorical exemptions have not.
 - Better coordination among and between state and federal agencies is needed on multiple issues, including environment, dredging, and construction and NEPA/SEPA reviews.
 - Some regulations increase ancillary costs of road and terminal capital investments. This is an especially acute issue with state stormwater regulations, which involve significant uncertainties about what will be required or what the costs will be.

Crude Oil

Crude oil is processed at five refineries in Washington. These refineries produce 89% of the petroleum needs for the State and 70% of Oregon's needs. The mode of crude oil delivery to refineries is shifting with significant increases in delivery by rail and potential increases in pipeline delivery volumes and less delivery by crude oil tank vessels.

The Olympic Pipe Line carries 50-60% of the output of these refineries to distribution centers in Western Washington, and is the sole source of jet fuel for the Sea-Tac airport.

Source:

www.wsdot.wa.gov/planning/wtp/documents/freight.htm

- Full compliance with the Industrial Stormwater General Permit (ISWGP) is challenging for Port tenants and creates an impact on Port competitiveness:
 - Washington's ISWGP is more stringent than other west coast states.
 - Washington's ISWGP corrective actions escalate more rapidly than other west coast states.
 - Marine Terminal Operator tenants face immediate and uncertain capital outlay for Best Management Practices and Treatment Technologies yet it is unclear if the proposed treatment devices will reduce pollutant levels below required benchmarks.
 - Marine terminals as a sector are unable to fully comply with current stormwater benchmarks jeopardizing the ability to continue operations without reasonable compliance options. This threat to the ability to move imports and exports on and off ships is compounded by the additional uncertainty of a new five-year permit due to be implemented in 2015. If efforts to obtain reasonable compliance options fail, then marine terminals will either shut down or be subject to significant daily penalties and citizen lawsuits.

12. Freight provisions in MAP-21 can be improved to better recognize the intermodal nature of freight mobility and international trade.

- MAP-21 includes a Primary Freight Network (PFN) capped at 27,000 centerline miles, which has resulted in USDOT releasing a draft network that is disconnected and excludes much of the nation's surface transportation system that should be considered of primary freight importance.
- The draft PFN as proposed by USDOT is limited to roadways, despite widespread acknowledgment that the nation's freight and goods transportation system is a multimodal integration of international and national trade corridors, air cargo, roads and highways, rail, marine cargo facilities, and inland waterways.
- The PFN needs to be defined so that it ensures future inclusion of the other freight modes that comprise the nation's freight and goods transportation system.

13. There is a need to establish a dedicated federal funding stream for freight that recognizes the multi-modal and multi-jurisdictional nature of freight mobility.

- TIGER grants continue to be a welcome source of funding for freight projects, but have not been permanently authorized by Congress.
- Currently MAP-21 requires the establishment of new freight provisions, but these remain unfunded programs.

Policy Recommendations

Federal Government

1. Work with Congress to pass comprehensive Harbor Maintenance Tax reforms such as those included in the Maritime Goods Movement Act to strengthen the competitiveness of American ports and drastically increase funds available for operations and maintenance dredging.
2. Work with Congress to increase revenue to the Inland Waterways Trust Fund so it can adequately pay for major construction and rehabilitation projects. This could be done by increasing the existing diesel tax, imposing lockage or towboat fees, or revising the cost share formula.
3. Work with Congress to support increased investments in and support for policies to address issues related to waterways, including dredging and aging jetties.
4. Work with Congress to make Section 214 of the Water Resources Development Act of 2000 permanent to address ongoing permit wait times and backlogs.
5. Work with Congress and USDOT to improve the freight provisions in MAP-21 by raising the 27,000 mile threshold in the Primary Freight Network. In the designation of the PFN and in National Strategic Freight Planning require USDOT to use multimodal methodology and assign higher priority to international trade corridor gateways (including ports, first/last mile connectors), and recognize multimodal hubs and intermodal connectors.
6. Work with Congress to support funding streams for dedicated freight programs such as TIGER, Projects of Regional and National Significance and other programs dedicated to the multimodal-multi-jurisdictional freight mobility improvements.

State Government

1. Stormwater Recommendations:
 - Clarify compliance and cost requirements through reasonable application of an all known and reasonable technologies (AKART) approach matched to marine terminals to allow for cost effective mitigation while providing for continued operations of marine terminals.
 - Synchronize permit requirements with west coast states, and with west coast Canadian ports to better address competitive disadvantages.
 - Compare permit requirements with east coast and Gulf States with marine terminals to better address competitive advantages.
 - Compare with municipal stormwater requirements to avoid dramatically different requirements for waterways.
 - Ensure state funding, such as Model Toxics Control Act, remains available to help address stormwater permit requirements.
 - Place a reasonable maximum cap on private sector stormwater investments based on reasonable, cost effective proven and readily available technologies.

2. Work with the Department of Ecology to create a parallel review process with NEPA, and limit a project's impact area to the location of the project.
3. SEPA categorical exemptions should be updated to better match with NEPA categorical exclusions. (The Department of Ecology is undertaking rulemaking at the time of this publication.)

State and Local Government (including Port Districts)

1. Use the Port Element of City Comprehensive Plans (RCW 36.70A.085) to help define and protect the core area of port and port-related industrial uses from incompatible land uses within the city and to help ensure efficient access.
 - a. Ensure that the Port Element is reviewed regularly (every 2-3 years) and updated as needed.
2. Encourage identification in local, regional, and state land use and transportation plans of economic corridors for the movement of people and goods.
3. Define freight or heavy haul corridors, including major interchanges, to allow targeted public sector investments in freight infrastructure (RCW 46.44.0915).

Local Government (including Port Districts) and/or Private Sector with support from State Government

1. Maintain and protect intermodal connectors and last mile connectors to improve goods movement.

Alaska: An Important Trading Partner

The ports of Tacoma and Anchorage celebrated 25 years of partnership in 2011. The Port of Tacoma's annual trade with Alaska is estimated at \$3 billion. If ranked with its international trading partners, Alaska would be fourth.

Port of Seattle facilities play an important role in supporting trade with Alaska. Marine terminals in the Seattle harbor and on the Duwamish River load goods on vessels headed to numerous cities and villages throughout Alaska. Fishermen's Terminal and Terminal 91 are home to the North Pacific fishing fleet and enable Alaska's seafood to be brought to market.

Rail



Overview

Washington's railways play a major role in the movement of containers, automobiles, and merchandise from seaports to consumer markets in and out of the state. Railroads account for 40% of intercity freight volume. Nationwide, rail moved 13.3% of the nation's freight tonnage.

Two mainline Class 1 railroads serve Washington: the BNSF Railway (BNSF) and the Union Pacific Railroad (UP). These Class 1 railroads primarily serve the inland transportation component of the supply chain for large volumes of import and export cargo moving through state ports. These railroads connect Washington to the rest of the U.S., Canada and Mexico.

There are also 24 short-line (or local) railroads, which vary in size from one mile to more than 100 miles. These include 18 local railroads and six switching and terminal railroads. Short-line railroads are owned by private and public entities.

The majority of rail infrastructure is owned by private companies. Class 1 railroads are regulated by the federal Surface Transportation Board, and freight rail safety regulation is the responsibility of the Federal Railroad Administration (FRA). As a result, state and local governments have a limited regulatory role and have no control over the frequency or schedule of rail traffic.

Railroad spending is divided into three categories: the cost to run the railroad, the cost to maintain the railroad, and the cost to grow and modernize the rail network. According to the Association of American Railroads, \$40.2 billion was spent on running the railroads in 2012. Railroad capital costs are proportionately large and far exceed the industrial average. The amount of money required to maintain the network was \$8.9 billion in 2012.

Freight railroads invested approximately \$13.5 billion to upgrade and expand the capacity of the rail network in 2012 and are projected to spend a similar amount in 2013. From 1980 through 2012 they've reinvested \$525 billion—more than 40 cents of every revenue dollar—to maintain and modernize the national freight rail network⁵.

Rail Corridors in Washington State

The major rail corridors in Washington State are:

- The north-south corridor that parallels I-5 from the Columbia River to Vancouver, BC
- The Columbia River Gorge route from Vancouver, WA to Pasco, Spokane, and eastward
- Stevens Pass running from Everett to Spokane and east
- Stampede Pass from Auburn to Pasco, Spokane, and east

⁵ Association of American Railroads, Total Annual Spending, 2012 Data.

Key Findings

1. **As an increasingly efficient mode for moving freight, rail transport is expected to grow dramatically. However, increased train traffic will bring additional impacts to local communities.**
 - Multi-state and multi-partner rail coalitions, for example, the Great Northern Corridor Coalition, have been a successful strategy to ensure rail improvement on key rail lines that are critical to Washington State's economy.
 - Under federal guidelines, Class I Railroads have a very limited financial partnership role with state and local governments concerning community impacts related to commodity/freight movement. Most impacts will need to be addressed with federal, state, and local dollars.
 - Impacts include train noise, loud horns, longer wait times at crossings, longer emergency response times, and hazardous cargo risks.
 - Communities often perceive few benefits from cargo that passes through their town or city.
 - Federal Section 130 (set-aside from the Highway Safety Improvement Program and apportioned to states by formula) and the Freight Mobility Strategic Investment Board are two funding sources for addressing at-grade crossings. However, requests exceed funds available.
 - The Short-line Tax Credit, which has provided significant relief for short-line railroad companies, has not been re-authorized. Effective capital spending planning requires a multi-year horizon to be effective and efficient.
 - Boeing 737 fuselages arrive in Renton by rail.
2. **Cargo owners determine the most cost effective and efficient mode based on factors such as fuel price, time, and commodity.**
 - Some cargo has shifted from air to rail due to fuel prices (UPS is currently one of BNSF's biggest customers).
 - Alternative fuel policies create uncertainty now and could increase costs in the future. Costs come from retrofitting old equipment or purchasing new equipment.
 - Limited rail capacity creates conflicts during the busy agricultural growing season.
 - Cargo flows are sensitive to rail rates.

The Washington State Rail Plan

WSDOT completed the Washington State Rail Plan (2013-2035) on March 31, 2014. The Plan provides an overview of passenger rail, Class I, and short-line freight rail. It also includes recommendations on how Washington State can partner with Amtrak, Class I, and short-line rail companies.

The WAFAC has included additional key findings and more specific policy recommendations in this folio.

The Plan is available at:
http://www.wsdot.wa.gov/rail/state_railplan.htm

3. Regulatory and market forces are producing shifts to greener technology. These shifts produce upfront costs, some of which will be passed on to consumers.

- Technology is enabling efficient goods delivery and moving cargo in a more environmentally sustainable way.
- Rail interests believe that growing our economy in the greenest way possible will require more trains. To do this successfully, more planning is needed.

4. Increased rules and regulations add costs and hinder competitiveness.

- Positive Train Control is an unfunded mandate that has cost billions.
- Legislation has increased freight rail rates and pricing regulations have been costly for the industry.
- The railroads oppose legislation to force freight railroads to allow open access to competing railroads.
- Short-line railroad companies handle the first- and last-mile of over 20% of the nation's rail freight. Companies are capital constrained and struggle with the irregular nature of needed investments to upgrade bridges for efficient freight movement. They also struggle with other capital needs for bridges, rail, cross ties, equipment, commercial facilities, and systems upgrades.
- Grade separations and crossing improvements are important to reducing impacts of growth in freight rail density as well as highway and local freight and passenger mobility.
- Unprecedented use of SEPA to include environmental impacts beyond the jurisdiction of the project site and beyond what is normally required under NEPA causes concern among rail, ports, and private sector investment interests in Washington.

5. Routing, queuing, and other changes have improved the flow of freight, but border gateways still need attention to further facilitate goods movement.

- The International Mobility & Trade Corridor Program (IMTC), a U.S.-Canadian coalition of government and business entities, has identified and promoted improvements to mobility and security for the four border crossings that connect Whatcom County and the Lower Mainland of British Columbia.
- The U.S. Customs and Border Protection's Vehicle and Cargo Inspection System (VACIS) screening facility impedes movement in Blaine, Washington. Trains are over one mile long and when stopped they block traffic at several intersections.

**Unit Trains are More Efficient
for the Railroads**

With a unit train, all of the train cars are shipped from the same origin to the same destination, without being split up or stored en route. This saves time and money, specifically related to time spent assembling and disassembling trains at rail yards. For example, a BNSF grain train would have 100 cars.

Policy Recommendations

Federal Government

1. Work with federal agencies to ensure regulations do not interfere with modal competition.
2. Work with Congress to re-authorize the Short-line Tax Credit on a minimum of a five-year cycle so that Short-line Capital programs can be properly developed and efficiently administered for these vital “first mile, last mile” freight connectors.
3. Work with Congress to expand the Section 130 program – State funding for grade crossing improvements and separations.
4. Request the U.S. Customs and Border Protection’s Vehicle and Cargo Inspection System (VACIS) screening facility pursue new technology, such as “Rapiscan,” which can allow up to 35 mph scanning speed.
5. Work with Congress to pass the Maritime Goods Movement Act, which provides a competitive grant program for freight mobility projects.

Federal and State Government

1. Work with legislators to pass legislation that provides additional public financial assistance to help cities and towns address public safety and emergency response time issues to help mitigate the impacts of rail growth.

State Government

1. Develop a systematic way of addressing freight funding, for example, to address the over \$1 billion in identified at-grade crossings needs.
2. Support coalitions to plan for corridor improvements.

Local Government

1. Local public agencies need to get the railroad involved early in the grade separation design process (e.g. before the agencies get to the 30% design phase.) Railroads should be available to provide input to local governments during the design process.
2. Grade separations must consider the future growth of rail traffic. For example, where there is only a single track at a crossing where a separation is being considered, the bridge design should consider two or more tracks to accommodate future rail traffic.

Washington State At-Grade Crossing Inventory

The WAFAC conducted an inventory of at-grade crossings. The inventory only reviewed Class I railroads within city limits that intersected with high tonnage roadways.

The preliminary inventory:

- Identified over 110 at-grade crossings to date.
- \$1.1B is estimated to address less than half of the first tier and emerging grade separation inventory.

Trucking



Overview

There are 1.2 million truck carriers nationwide with 63,000 in the northwest and 7,000 in Washington State. Truck related jobs account for about 8% of the Washington workforce.

Trucking is a diverse industry with a variety of truck-types, ownerships, and services. Trucks carried \$334 billion of the state's total freight volumes according to data released by the Federal Highway Administration.

Truck freight is expected to grow about 3% annually between 2010 and 2040. Trucking dominates the freight transportation industry in terms of both tonnage and revenue, comprising 68.5% of tonnage and 80.7% of revenue in 2011.⁶

Our freight system enables local distribution of an enormous variety of goods that Washington's residents and businesses depend on. Movement of goods relies on highways and roads for long-distance transport as well as for urban goods delivery "last-mile" delivery (i.e. transport from warehouses or intermodal freight terminals to final destinations). There has been a significant increase in short truck trips in urban areas due to online groceries and other e-commerce, trips to and from distribution centers, and point to point shipments.

Changes in Storage and Goods Movement

- Higher retail rents have led to smaller stores, and more inventory stored at distribution centers and warehouses.
- Regionalization of distribution centers and smaller, more frequent deliveries to stores have increased. In some cases, trucks serve as mobile warehouses.
- Since distribution centers are often close to retail centers, average truck trip distance has decreased.
- Increased demand for on-time deliveries in short appointment windows (to the minute) or face fines.
- Major food distributors' urban delivery hours are shifting to off-peak (midnight to 5:00am), though off peak delivery is illegal in some jurisdictions.

⁶ American Trucking Association Chief Economist, Bob Costello.

Key Findings

1. Trucking tonnage has increased with the economy recovery. Many local employers rely heavily on trucks to move goods.

- 2012 tonnage was 9.4 billion tons (68.5% of all freight modes), up 2.3%.
- Boeing directly employs over 300 drivers who drove 8.5 million miles in the Puget Sound region (does not include vendors). Boeing moves parts by water, rail and air, but all these modes require truck pickups.
- PACCAR relies primarily on trucks for freight movement and moves less than 15% of its parts by rail.
- FedEx has 1,400 employees in Washington State. They have a 120,000 SF facility in Seattle and a 20,000 SF warehouse in Blaine near the U.S.-Canada border.
- SuperValu operates a 500,000 SF grocery warehouse in Tacoma that makes deliveries to six states and overseas military bases.
- Costco has 29 warehouses in Washington. In 2012, they had 130,000 forty foot equivalent truckloads inbound to the state.

2. Puget Sound companies rely on trucks and are concerned about congestion and road infrastructure.

- The costs of a missed delivery due to congestion, road closures, or other reasons are high given the just in time nature of production. Any delay slows the entire assembly process and can leave store shelves unstocked.
- Oversize/overweight freight is most affected by functionally obsolete bridges.
- Boeing currently produces 38 planes each month in Renton with components coming from various parts of the state. The goal is to increase production to 60 planes, which will require more trucks and produce more traffic.
 - Boeing is adjusting delivery times where possible – they have 28 drivers on the third shift – but not everything can be delivered during this time and some vendors do not want to stay open beyond 10 hours.
- Almost all of Costco's 130,000 truckloads in the state travel on SR 167, which is regularly backed up.

The Boeing Company

Boeing maintains established manufacturing, service, and technology partnerships around the world through contracts with 26,500 suppliers and partners, some of which are located in Washington.

Its exports, which are generally flown directly overseas from Boeing's assembly plants, lift Washington from an 'average' exporting state to one of the highest in the country in terms of export value per resident in the country.

Boeing has customers in 150 countries and produced \$81.7 billion total revenue in 2012.

Source:
www.boeing.com/companyoffices/aboutus/brief.html

3. A driver shortage began in 2006 and continues to be a challenge.

- The current workforce is retiring and quality of life issues make it harder to attract new drivers.
- Age of entry is a career barrier for trucking:
 - Federal law requires drivers to be age 21 or over to haul **interstate** freight.
 - **Intrastate** freight (a trip that originates and ends in Washington State) can be hauled by a driver at age 18.
 - A barrier to a driver aged 18 to 20 occurs when interstate freight enters Washington as a final destination and the load is broken down to be shipped locally. Because the original load was defined as “interstate,” drivers age 18 to 20 cannot make the local delivery. This further compounds driver shortages and is a barrier to trucking as a career path.
 - Insurance requirements for under age 21 drivers can be a barrier.
- Truck technology is being developed to address some safety issues through adaptive cruise control, more secure cab structure, and engine dropout to mitigate injuries involving impact with objects.
- The Compliance, Safety and Accountability (CSA) system that launched in December 2010 is creating uncertainty and dissatisfaction and reducing the pool of eligible drivers.
- Hours of Service Rule Changes (as of July, 2013) require more truck drivers and potentially more equipment to transport the same amount of goods.

4. Regulatory and market forces are producing shifts to greener technology. These shifts produce significant upfront costs, some of which will be passed on to consumers.

- Technology is enabling efficient goods delivery and moving cargo in a more environmentally sustainable way.
- Private and for hire freight carriers are using routing optimization software, cross dock programs, and long combination vehicles (when possible) to maximize truck capacity, increase efficiency, and minimize trucks on the road.
- Diesel prices are volatile and current forecasts suggest LNG prices will remain low into the future, but ultimately low LNG prices may bring down the price of diesel.

Trade with Canada

The annual value of goods coming into Washington from Canada is \$14 billion. Seventy percent of that passes through Whatcom and Skagit counties and much of it is transported by truck.

- Trucks are using low sulfur diesel and the latest generation diesel engines are the cleanest burning in trucking history. The LNG/ CNG fueling network is experiencing growth nationwide. Trucks will convert to natural gas either by retrofitting current trucks or replacing their engines with LNG or CNG burning engines during normal fleet replacements.
- At PACCAR in 2013, diesel trucks average \$110,000 while LNG trucks cost more at \$165,000.
- Biodiesel mandates increase costs since biodiesel costs 2-4 cents more per gallon.

5. Inconsistent state regulations produce inefficiencies and extra costs for the trucking industry.

- Washington truckers pay higher annual truck taxes: 2011 average cost for a five-axle tractor semi-trailer combination was \$8,900 in Washington compared to \$5,585 nationally.
- In 1991, Congress passed the Intermodal Surface Transportation Efficiency Act prohibiting states from increasing the size and weight of combination vehicles beyond that allowed on June 1, 1991.
 - Companies like Costco and FedEx would like to use longer combination vehicles. Companies can haul three trailers in Idaho and Oregon, but are restricted to two when they enter Washington. Drivers must stop and break down the freight, which takes time.
 - Changes to additional length would require appropriate number of axles to minimize roadway damage.
 - Washington State has authorized higher limits but is unable to allow them due to the Federal limits.
- Truck parking and staging is increasingly an issue as long haul truckers need safe places to park overnight.
- Requirements mandating electronic on-board recorders have some concerned about the cost and others optimistic that elimination of paper log books will produce savings.
- Environmental policies and goals may conflict with trucking interests and increase cost of operations (see side bar).

Low Carbon Fuel Standards

Cost estimates to meet the standards vary:

The Governor's Climate Legislative and Executive Workgroup Report to the Legislature cited research from the Boston Consulting Group estimating an additional \$.14 to \$.69 more per gallon as it will cost more to produce low carbon fuel.

In the January 23rd Senate Environmental Committee work session on low carbon fuel standards, the Western States Petroleum Association presented their findings on the effect of the fuel standard in California, their estimate was \$.33 to \$1.06 in additional fuel costs per gallon.

The cost of fuel accounts for nearly 30% of operating costs, which along with equipment and driver pay are the highest costs for trucking businesses. Given the small business nature of trucking, they are very sensitive to costs and historically have very low margins.

- More standardization across states and provinces is needed. Washington legislation limits trailer length to 28 feet. Larger combinations in Washington and Oregon are limited to intrastate travel and short connections from off-ramps. Other states allow 33 feet, which allows greater utilization and fewer trucks. British Columbia allows a maximum licensed gross weight of 139,994 lbs without a permit compared to 80,000 lbs in the U.S.
- Trucking favors size and weight increases in compliance with Federal Formula B, due to efficiency gains for trucks and shippers (fewer trips would be needed). Rail interests are opposed without a commensurate payment for increased wear and tear on the roads. A difference of opinion may remain on the definition of “fair share” and whether the trucking industry is already paying it.

Policy Recommendations

Federal Government

1. Federal regulations should not interfere with modal competition.
2. Work with Congress to support consistent and stable federal and state transportation infrastructure funding, which is necessary to address freight infrastructure needs and broader transportation investments.
3. Work with federal agencies for standard regulations around trailer size and weight limits with appropriate requirements for axles.
4. Work with Congress to revise the definition of interstate travel to allow 18-20 year old drivers to drive the in-state leg of an interstate shipment. This would help alleviate the state and national truck driver shortage and create a career path for truck drivers.

State Government

1. Any state transportation revenue package that includes an increase in truck weight fees should be dedicated to mitigating the impacts of freight.
2. More funding is needed for at-grade crossing improvements and “first and last mile” projects that target gaps between major transportation nodes.
3. When public policy is developed, impacts to freight mobility should be included in the trade-off analysis.

State and Local Government (including Port Districts)

1. Encourage identification in local, regional, and state land use and transportation plans of key transportation corridors for the movement of people and goods.
2. Define freight or heavy haul corridors, including major interchanges, to allow targeted public sector investments in freight infrastructure. (RCW 46.44.0915)

Washington State Freight Advisory Committee

Freight Project Inventory

May 2014

First Priority Rail Crossings

The highest Priority projects that have been identified by their jurisdictions as the most critical crossings to be addressed. Criteria was based on where heavily used roadways (T-1, T-2 classifications) intersected with an at-grade crossing in city limits or urban areas that cause delays and safety issues due to blockages. Most projects have partial funding but lack the remaining funding needed to advance to construction. Individual project sponsors will need to be contacted for updated project estimates.

County	City	Street	Railroad	Plan	Estimate	Comments
Chelan	Wenatchee	Hawley St.	BNSF	RTPO	22,000,000	
Clark	Ridgefield	Mill St	BNSF	RTC	Closure	Project would provide a grade separation at Pioneer allowing the closure of two current at-grade crossings
Clark	Ridgefield	Division St	BNSF	RTC	Closure	
Clark	Ridgefield	Pioneer St	BNSF	RTC	17,800,000	
Franklin	Pasco	Lewis St	BNSF	TIP	27,000,000	Ben-Franklin COG High Priority Project
King	Auburn	6th St SW/SE	BNSF	PSRC	35,712,000	New Crossing of BNSF Rail yard identified on PSRC plan
King	Kent	S. 228th St (U.P. undercrossing)	UP	PSRC	25,000,000	Final phase of corridor completion
King	Kent	S 212th St	BNSF	PSRC	41,997,161	On FMSIB list
King	Kent	S 212th St	UP	PSRC	40,997,228	On FMSIB list
King	Kent	SR 516-Willis	BNSF	PSRC	23,000,000	combined 80,994,524 - On FMSIB list
King	Kent	SR 516-Willis	UP	PSRC	30,000,000	On FMSIB deferred list due to lack of funding
King	Seattle	S Lander/3rd	BNSF	PSRC	167,257,375	On FMSIB deferred list due to lack of funding
King	Tukwila	SW 27th St/ Strander	UP	PSRC	29,016,000	On FMSIB list

County	City	Street	Railroad	Plan	Estimate	Comments
King	Tukwila	156th St to 16th Ave S	UP	PSRC	32,829,752	Tukwila Station Access
Pierce	Pacific	8th & Stewart	UP	PSRC	23,770,800	On FMSIB deferred list due to lack of funding
Pierce	Unincorporated	Canyon Rd E	BNSF	PSRC	67,680,529	On FMSIB deferred list - includes roadway improvements
Snohomish	Marysville	SR528-4th Ave	BNSF	PSRC	at-grade	De-emphasize current route - alternate route (see highway inventory)
Snohomish	Marysville	SR 529/I-5 Interchange Expansion	BNSF	PSRC	n/a	\$60,000,000 road project in lieu of grade separations (see roadway inventory)
Snohomish	Marysville	116th St NE	BNSF	PSRC	at-grade	Current at-grade crossing to be relieved by construction on 156th St Interchange
Snohomish	Marysville	156 ST Interchange	BNSF	PSRC	n/a	45,000,000 road project in lieu of at-grade crossings (see roadway inventory)
Whatcom	Blaine	Bell Road and Hughes Ave	BNSF	WCOG	25,000,000	SR 548 border crossing blockages due to at grade crossing

The following counties did not identify any emerging at-grade crossings: Adams, Asotin, Benton, Columbia, Cowlitz, Douglas, Grant, Kittitas, Lewis, Lincoln, Skamania, Spokane, Stevens, Thurston, Walla Walla, Whitman, and Yakima.

Emerging At-Grade Rail Crossings

The list contains projects that are in development or have sufficient volumes of truck traffic that will need to be considered for improvement sometime after 2020. Individual project sponsors will need to be contacted for updated project estimates.

County	City	Street	Railroad	Plan	Estimate	Comments
Benton	Kennewick	N Edison St	BNSF	RTP	27,500,000	
Chelan	Wenatchee	N Miller St	BNSF	RTPO	20,000,000	
Clark	Ridgefield	Mill St	BNSF	RTC	closure	Project would provide a grade separation at Pioneer allowing the closure of two current at-grade crossings
Clark	Ridgefield	Division St	BNSF	RTC	closure	
Clark	Ridgefield	Pioneer St	BNSF	RTC	17,800,000	
Clark	Washougal	32nd St/Russell	BNSF	RTC	replaced	Constructing the grade separation at 27th St would allow for the closure of the at-grade crossing at 32nd St
Clark	Washougal	27th St	BNSF	RTC	15,000,000	
Cowlitz	Kalama	Toteff-Hendrick	BNSF	CWCOG	30,000,000	Part of WSDOT high speed passenger rail corridor
Cowlitz	Kelso	Hazel Street	BNSF	CWCOG	25,000,000	
Cowlitz	Kelso	Mill St	BNSF	CWCOG	closure	Mill St and S. River/Yew crossings
Cowlitz	Kelso	S River St/ Yew St	BNSF	CWCOG	closure	
Cowlitz	Longview	SR 432/SR 433 Corridor	BNSF	CWCOG	150,000,000	Part of \$300,000,000 corridor improvement-delays of 35 minutes to clear intersection at crossings. Trucker priority
Cowlitz	Woodland	W Scott Ave	BNSF	CWCOG	30,000,000	
Franklin	Pasco	W "A" St at South 1st Ave	BNSF	RTP	10,000,000	
Franklin	Pasco	Oregon	BNSF	RTP	10,000,000	

County	City	Street	Railroad	Plan	Estimate	Comments
King	Seattle	Broad St	BNSF	PSRC	TBD	Heavy Tonnage Route
King	Seattle	E Marg & Duwamish	UP	PSRC	TBD	Heavy Tonnage Route
King	Kent	W James St	BNSF	PSRC	TBD	
King	Kent	Meeker St	BNSF	PSRC	TBD	
King		216th Ave SE	BNSF	PSRC	TBD	
King		Covington Way S	BNSF	PSRC	TBD	
King	Seattle	Wall St	BNSF	PSRC	TBD	Arterials
King	Seattle	S Holgate W/O 3	BNSF	PSRC	TBD	
King	Seattle	Spokane St WB	BNSF	PSRC	TBD	
King	Seattle	S Spokane St EB	BNSF	PSRC	TBD	
King	Seattle	Spokane St EB	BNSF	PSRC	TBD	
King	Seattle	Spokane St WB	BNSF	PSRC	TBD	

Emerging At-Grade Rail Projects

County	City	Street	Railroad	Plan	Estimate	Comments
King	Kent	West James St	UP	PSRC	TBD	
King	Kent	W Meeker St	UP	PSRC	TBD	
King	Auburn	15th St SW	UP	PSRC	TBD	
King	Pacific	Ellingson Rd	UP	PSRC	TBD	
King	Port of Seattle	Duwamish Rail Corridor Project	UP	Port of Seattle	20,000,000	Creates a more direct rail access from the Port of Seattle marine terminals T-5 and T-18 to the Union Pacific and BNSF mainlines.
King	Seattle	S Indus/4 Av S	UP	PSRC	TBD	
King	Seattle	Spokane St S	UP	PSRC	TBD	
King	Seattle	Lander St S/5th	UP	PSRC	TBD	
King	Seattle	Holgate St So	UP	PSRC	TBD	
Klickitat	Bingen	Maple St	BNSF	RTC		Closed crossing with new alignment
Klickitat	Bingen	Bingen Opoint Access	BNSF	RTC	30,000,000	
Lewis	Centralia	To be identified	BNSF	CWCOG	TBD	Up to 90 minutes of delay daily
Lewis	Chehalis	To be identified	BNSF	CWCOG	TBD	Impacts to food processing plants
Lewis	Napavine	To be identified	BNSF	CWCOG	TBD	Complete blockage when trains pass
Lewis	Winlock	To be identified	BNSF	CWCOG	TBD	Complete blockage when trains pass
Pierce	Tacoma	E 15th (at east F St)	BNSF	PSRC	TBD	Heavy tonnage Routes identified by PSRC
Pierce	Tacoma	11th St	BNSF	PSRC	TBD	Heavy tonnage Routes identified by PSRC

County	City	Street	Railroad	Plan	Estimate	Comments
Pierce	Tacoma	E 15th at J St	UP	PSRC	TBD	Heavy tonnage Routes identified by PSRC
Pierce	Tacoma	St Paul Ave N	UP	PSRC	TBD	Heavy tonnage Routes identified by PSRC
Pierce	Tacoma	St Paul Ave	UP	PSRC	TBD	Heavy tonnage Routes identified by PSRC
Pierce	Sumner	Main St	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Puyallup	15th St SE	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Puyallup	5th St SE	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Puyallup	3rd St SE	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Puyallup	Meridian St	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Puyallup	5th St NW	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce		Stewart St 66 Av	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Steilacoom	Union Ave	BNSF	PSRC	TBD	Arterial Routes identified by PSRC
Pierce	Sumner	Sumner Heights Dr.	UP	PSRC	TBD	Arterial Routes identified by PSRC
Skagit	Burlington	SR20-Burlington	BNSF	SMPO	TBD	T-2
Skagit	Burlington	SR 20 - Avon	BNSF	SMPO	TBD	T-2
Skagit		Cook Rd	BNSF	SMPO	TBD	T-2 east of old Highway 99 - significant delays & LOS failings
Skagit		Fir Island Rd	BNSF	SMPO	TBD	T-3 Route
Skagit		Farm to Market	BNSF	SMPO	TBD	T-3
Skagit		Bayview-Edison	BNSF	SMPO	TBD	T-3
Skagit		Higgins Airport Way	BNSF	SMPO	TBD	T-3
Skagit		Avon-Allen Rd	BNSF	SMPO	TBD	T-3

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County	City	Street	Railroad	Plan	Estimate	Comments
Skagit		S Texas Rd	BNSF	SMPO	TBD	T-3
Skagit		Garrett Road	BNSF	SMPO	TBD	T-3
Skagit	Sedro Woolley	SR 9	BNSF	SMPO	TBD	T-3
Skagit		Ershig Rd	BNSF	SMPO	TBD	T-3
Skagit		Ershig Rd	BNSF	SMPO	TBD	T-3
Skagit		Bow Hill Rd	BNSF	SMPO	TBD	T-3
Skagit		Colony Rd	BNSF	SMPO	TBD	T-3
Skagit		SR 9	BNSF	SMPO	TBD	T-3
Skagit	Mount Vernon	Old 99/Blackburn	BNSF	SMPO	TBD	T-3 - considered high importance by SMPO
Skagit	Mount Vernon	SR 536 - Kincaid	BNSF	SMPO	TBD	T-3 - considered high importance by SMPO
Skagit	Mount Vernon	Riverside Drive	BNSF	SMPO	TBD	T-3 - considered high importance by SMPO
Skagit	Mount Vernon	Riverside Drive	BNSF	SMPO	TBD	T-3 - considered high importance by SMPO
Skagit	Mount Vernon	College - SR 538	BNSF	SMPO	TBD	T-3 - considered high importance by SMPO
Skagit	Mount Vernon	Hoag Rd	BNSF	SMPO	TBD	
Skamania	Stevenson	Russell Ave	BNSF	RTC	TBD	
Snohomish	Edmonds	Dayton St.	BNSF	PSRC	TBD	S. access from train station
Snohomish	Edmonds	SR 104/Main St	BNSF	PSRC	TBD	At grade ferry access
Snohomish	Everett	Everett Ave Extension	BNSF	PSRC	13,392,000	On FMSIB deferred list - lowered priority by city
Snohomish	Monroe	SR 203-Lewis St	BNSF	PSRC	TBD	Heavy Tonnage Route
Snohomish	Snohomish	Airport Way	BNSF	PSRC	TBD	

County	City	Street	Railroad	Plan	Estimate	Comments
Snohomish	Marysville	88th St NE	BNSF	PSRC	TBD	
Snohomish	Edmonds	SR104-Main St	BNSF	PSRC	TBD	
Snohomish	Marysville	SR528-4th Ave	BNSF	PSRC	TBD	
Snohomish	Monroe	E Main St	BNSF	PSRC	TBD	Arterial identified by PSRC
Snohomish	Monroe	163rd-SE Fryelands Blvd	BNSF	PSRC	TBD	
Snohomish	Marysville	116th St NE	BNSF	PSRC	TBD	
Snohomish	Marysville	136th St NE	BNSF	PSRC	TBD	
Snohomish	Marysville	172 St NE/SR531	BNSF	PSRC	TBD	
Snohomish	Marysville	80th St NE	BNSF	PSRC	TBD	
Spokane	west WA/ID line	Idaho Rd	BNSF	SRC	20,400,000	rural major collector
Spokane	near Trent Ave	Harvard Rd	BNSF		25,800,000	Spokane
Spokane	Spokane Valley	Barker Rd	BNSF	SRC	47,000,000	On FMSIB deferred list -3rd city project priority
Spokane	Spokane Valley	Pines	BNSF	SRC	23,000,000	On FMSIB deferred list due to funding
Spokane	Spokane Valley	Park Rd	BNSF	SRC	22,500,000	On FMSIB deferred list due to funding
Whatcom	Ferndale vicinity	Grandview Road	BNSF	WCOG	50,000,000	T-3 Two locations on mainline spur
Whatcom	Bellingham	Cornwall Avenue	BNSF	WCOG	20,000,000	T-3

The following counties did not identify any emerging at-grade crossings: Adams, Asotin, Columbia, Douglas, Grant, Kittitas, Lincoln, Stevens, Thurston, Walla Walla, Whitman, and Yakima.

Local First/Last Mile Project Emerging in 1-6 Years

Projects in this inventory represent the projects that could advance in the next 1-6 years if final funding is secured. The projects were submitted by our MPOs and RTPOs around the state. Nearly all of the projects have partial funding from a variety of sources. Individual project sponsors will need to be contacted for updated project estimates.

Title	Location	County	Description	If funded, project completion	Proposed Budget
SR 516 – Jenkins Creek to 185th Place SE	Covington	King	Widen and reconstruct a portion of SR 516 (SE 272nd St) between Jenkins Creek and 185th Place SE. This project will include the crossing of Jenkins Creek with a new structure for the stream, widening the street from 2-lanes to 5-lanes	2015	14,687,390
South 212th Street	Kent	King	Grade Separated BNSF Rail Crossing in Kent – FAST Phase II	2016	27,000,000
Willis Street Grade Separations	Kent	King	Provides a critical, grade-separated link through the commercial/industrial center of Kent. Links the valley warehouse/industrial center to SR 167 and I-5.	2016	47,000,000
212th Street	Kent	King	Grade Separated UP Railroad Crossing - FAST Phase II	2016	27,000,000
212th Street	Kent	King	Grade Separated UP Railroad Crossing - FAST Phase II	2016	27,000,000
S 228th St Grade Separation	Kent	King	Grade separation of S 228th St over the Union Pacific Railroad tracks and the adjacent Interurban Trail.	2015	25,000,000
Terminal 46 (T46) Modernization Project	Port of Seattle	King	Dock rehabilitation, crane rail extension, storm water quality improvements, and paving to repair terminal apron and container yard.	2020	60,200,000
Terminal 5 (T5) Dock Upgrade	Port of Seattle	King	Upgrade 600 linear feet of dock and provide additional electrical capacity to support 22 foot wide cranes and additional refrigerated container power plugs at T5 north berth.	2019	73,000,000

Title	Location	County	Description	If funded, project completion	Proposed Budget
SW 27th St/Strander Blvd Phase 2	Renton	King	Improve the existing access along SW 27th St between Oakesdale Ave SW and East Valley Rd through signalization and/or limited channelization.	2020	
Logan Ave N	Renton	King	Reconstruct roadway, install sidewalks, HOV/Rapid Ride improvements to the Boeing Renton Plant.	2020	8,140,000
Oakesdale Ave SW	Renton	King	Widen Monster Rd Bridge; widen the roadway to 4/5 lanes +Bike Lanes + CGS	2020	30,000,000
Terminal 18 Truck Access Improvements	Seattle	King	Improve Access to Terminal 18 to prevent back-ups onto SW Spokane Street	2015	1,678,000
Heavy Haul Corridor Plan	Seattle	King	Identification of key freight routes between marine terminals and rail yards in Duwamish/Seattle	2020	High Priority
Air Cargo Road	Seattle	King	Pavement rehabilitation, cargo access and way finding improvements along Air Cargo Rd to support airport operations mobility and increase pedestrian, vehicle safety	2016	
Colorado Avenue S (access road) Rebuild	Seattle	King	Rebuild Colorado Ave S to improve safety and access	2019	1,350,000
Diagonal Avenue S / S Oregon St / Denver Avenue S Rebuild	Seattle	King	Rebuild existing drayage route facility between Port of Seattle and Union Pacific Argo Yard	2019	1,900,000
E Marginal Way S Rebuild	Seattle	King	Rebuild and make operational/ITS improvements	2019	16,750,000
S Atlantic St. Rebuild	Seattle	King	Rebuild and make operational/ITS improvements	2019	
S Hanford St. Rebuild	Seattle	King	Rebuild and make operational/ITS improvements	2019	3,900,000

Title	Location	County	Description	If funded, project completion	Proposed Budget
1st Avenue S Rebuild, Viaduct over UPRR Yard	Seattle	King	Replace the viaduct spanning the Union Pacific rail yard (\$83M), 1 st Ave. S rebuild, including ITS improvements south of Spokane St (\$18M), and 1 st Ave S rebuild, including ITS improvements north of Spokane St. (\$10M)	2020	111,000,000
6th Avenue S Rebuild	Seattle	King	Rebuild and make operational / ITS improvements	2020	17,000,000
Argo Yard Connector	Seattle	King	Construct new drayage route facility between Port of Seattle and Union Pacific Argo Yard	2017	2,300,000
Delridge Way SW Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to Delridge Way SW. Access to Nucor Steel only freight benefit	2020	25,150,000
Duwamish Avenue S Rebuild	Seattle	King	Rebuild and make operational / ITS improvements to Duwamish Avenue S	2020	1,900,000
Nickerson St / W Nickerson St Rebuild	Seattle	King	Rebuild Nickerson to improve freight movement alternatives in the Ballard-Interbay-Northend manufacturing industrial district	2020	10,101,000
Northgate Way / Holman Rd / 15th Ave / Elliott Ave Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to Northgate Way, Holman Road, 15th Avenue and Elliott Ave.	2020	60,350,000
NW Market St / Leary Way / N 36th St	Seattle	King	Rebuild and make operational/ITS improvements to Leary Way corridor to facilitate freight movement	2020	22,950,000
Railroad Crossing ITS implementation	Seattle	King	Install and operationalize ITS to improve railroad crossing safety at Broad Street, S Atlantic Street, S Holgate Street, S Lander Street and S Spokane Street within the Duwamish Manufacturing Industrial Center	2020	552,500

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Title	Location	County	Description	If funded, project completion	Proposed Budget
S Lucille Street Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to S Lucille Street	2020	9,650,000
S Michigan Street ITS Implementation	Seattle	King	Install and operationalize ITS to facilitate freight movement in SR 99 / I-5 interchange area	2020	1,600,000
S Spokane Street Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to S Spokane Street	2020	10,263,000
SW Spokane Place Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to SW Spokane Place	2020	1,900,000
E Marginal Way S Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to E Marginal Way S.	2019	16,750,000
S Atlantic St. Rebuild	Seattle	King	Rebuild roadway & ITS improvements to S Atlantic Street Poor physical roadway/primary access T-46 & SIG	2019	2,850,000
S Hanford St. Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to S Hanford Street	2019	3,900,000
SW 27th St / Strander Blvd Phase 1 Segment 2b	Tukwila	King	Design and construction of the railroad bridge at the Union Pacific (UP) railroad tracks and a four lane roadway connecting SW27th St (in Renton) to Strander Blvd (in Tukwila).	2020	24,321,874
BNSF Intermodal Railyard Access	Tukwila	King	Design and construct a new access to BNSF intermodal railyard	2020	4,284,425
Canyon Rd E		Pierce	Widen to 5 lanes, reconstruct existing arterial including NMF	2020	20,500,000

Title	Location	County	Description	If funded, project completion	Proposed Budget
Thorne Rd from Lincoln Ave to East 11th St.	Tacoma	Pierce	Reconstruct to meet City of Tacoma's heavy haul standards.	2016	2,500,000
Puyallup Bridge F16A & F16B Replacement	Tacoma	Pierce	Bridge Re-Construction, from 3 to 4 lanes.	2015	Fully Funded
34th Avenue East Improvements, Pacific Highway East to 12th Street East	Fife	Pierce	Widen and reconstruct the two-lane existing farm-to-market road into a two-lane one way heavy truck route using urban principal arterial complete street standards. Part of a one-way couplet with Port of Tacoma Road, and will operate as a key part of the Port of Tacoma Road interchange. TIB assumed to participate.	2020	8,000,000
Port of Tacoma Interchange Improvements	Fife	Pierce	First phase of a three-phase project that will improve freight mobility, increase safety, relieve congestion. Phase I will purchase necessary right-of-way and construct a new southbound off-ramp from Interstate 5 (I-5) to improve intersection spacing and reduce congestion in the surrounding area, and a truck route north and west along 34th Avenue and 12th Street to Port of Tacoma Road.		13,645,000
Frank Albert Road East gap closure between 20th Street East and Pacific Highway East and corridor completion	Fife	Pierce	Frank Albert Rd is the only existing Fife street that is grade-separated at the UPRR; this project will complete the Frank Albert Rd corridor from north to south, connecting Fife's industrial zoned lands to the Port of Tacoma. The north segment of the corridor is currently named 46th Ave East; this segment will be renamed when the corridor is connected over I-5. Widen to 3-lane urban collector complete street. Signalize intersections at 20th St East and Pacific Highway E.	2020	30,000,000
Additional Arrival/Departure Tracks	Port of Tacoma	Pierce	Install additional arrival departure trackage.	2020	

Title	Location	County	Description	If funded, project completion	Proposed Budget
Double Ending Washington United Terminals (WUT) Intermodal Yard	Port of Tacoma	Pierce	Improving train movements within the tidelands requires connecting the northern end of WUT Terminal to the rail line to the west of the Port of Tacoma Rd. Project will build 3,750 feet of track, relocate existing truck gate, guardhouse, cameras and optical recognition readers.		
Double Ending Pierce County Intermodal Yard	Port of Tacoma	Pierce	Improving train movements along the SR 509 corridor requires connecting the eastern end of the existing Pierce County Intermodal yard to the north/south tracks.		
Port Transfer yard Connection	Port of Tacoma	Pierce	Construct a new connection from the Port Transfer Yard to existing tracks along Lincoln Ave and direct access to US Oil reducing road/rail congestion on Port of Tacoma Rd.		
Port of Tacoma Road Rehabilitation	Port of Tacoma	Pierce	Replace existing roadway with concrete. New roadway to accommodate heavy haul vehicles with better roadway lifecycle benefits.	2015	8,900,000
Everett Arterial Access Improvements	Everett	Snohomish	Arterial access improvements to US 2 and I-5 in Everett	2018	32,000,000
Phase I -Re-designation of SR 529 & Improvements	Everett	Snohomish	Arterial access improvements from Port of Everett to I-5; signal improvements, expanded turn lanes and radii at key intersections to better accommodate over-dimensional freight traffic	2015	4,700,000
Hardeson Road Interchange at SR 526	Everett	Snohomish	Arterial access improvements to SR 526; construct access ramps on SR 526 at Hardeson Road to improve traffic flow on SR 526 and local streets in the SW Everett industrial area.	2018	32,000,000
41st Street to W. Marine View Drive Freight Corridor Improvements	Everett	Snohomish	Constructs improvements to three major Everett intersections: W. Marine View Dr. & Pacific Ave., Pacific Ave. & Rucker Ave., and Rucker Ave. & 41st St. Redirects truck traffic from the Port of Everett out of the downtown core to Rucker Avenue and south to the new 41st Street single point urban interchange at Interstate 5. Work will include signal improvements, expanded turn lanes with improved radii at key intersections, and sidewalk improvements to match the new street sections.		3,071,807

Title	Location	County	Description	If funded, project completion	Proposed Budget
SR 529 Highway/The Landing North Wharf Rehabilitation	Everett	Snohomish	Replacement of piling/stringers/planking and bulkhead support structure to maintain structural integrity of the Port's North Wharf and the bulkhead adjacent to SR 529 (W. Marine View Drive) and WSDOT right-of-way	2015	1,500,000
SR 529 Interchange	Marysville	Snohomish	Complete the current half interchange by constructing a new I-5 northbound off-ramp onto SR 529 and new southbound on-ramps from SR 529 to I-5	2017	47,150,000

Local First/Last Mile Project Emerging in 7-12 Years

Projects in this inventory represent emerging projects that may not be ready to go to construction within the next six years, but are moving forward. Some have estimates and timelines and some are not yet to that point; individual project sponsors will need to be contacted for updated project estimates. Most of these projects will also have partial funding from a variety of sources. In future updates, the Washington Freight Advisory Committee will work to refine the list with a better definition of freight benefits, timelines for construction and overall project cost.

Title	Location	County	Description	Completion Year	Project Estimate
S 272nd/277th St Corridor Capacity & Non- Motorized Trail Improvements	Auburn	King	Widen roadway between Auburn Way North and L St NE. Includes 2 new EB lanes, 1 new WB lane, separated non-motorized trail, intersection improvements, lighting, ITS improvements, and associated storm improvements.	2015	8,310,150
Bel-Red Regional Connectivity - 124th Ave NE	Bellevue	King	Improve and widen the 124th Avenue corridor in phases to increase connectivity between Downtown Bellevue and Overlake regional growth centers and the new Bel-Red TOD node. Widen to 5 lanes and bike lanes between NE 8th Street and Bel-Red Road;	2019	
120th Avenue NE Corridor Widening: NE 4th Street to Northup Way	Seattle	King	Improve and widen the 120th Avenue NE corridor in phases to increase connectivity between the Downtown Bellevue and Overlake regional growth centers and the new Bel-Red TOD node. Widen to five lanes with bike lanes and continuous sidewalk between NE 4th and Northup Way.	2023	
Rainier Ave S Corridor Improvements – Phase 2	Seattle	King	Phase 2 improvements include installation of BAT lanes, medians, curb, gutter, wider sidewalks, planted pedestrian buffer, street lighting including pedestrian scale illumination.	2018	
28th/24th Ave S	Seattle	King	Construct a new five lane arterial including bicycle lanes, curb, gutter, sidewalk, storm drainage, street lighting, signalization, channelization, landscaping, utilities, undergrounding of utility lines and paving.	2016	

Title	Location	County	Description	Completion Year	Project Estimate
Aurora Avenue N Rebuild	Seattle	King	Rebuild Aurora Avenue N (SR 99) and make operational/ITS improvements to facilitate freight through-movement.	2020	53,000,000
4th Avenue S Viaduct over UPRR Yard	Seattle	King	Replace the viaduct structure spanning the Union Pacific rail yard.	2020	83,000,000
Montlake Blvd NE HOV Lane and ITS Improvements	Seattle	King	Extend HOV lane on S/B Montlake Blvd and install ITS improvements to increase speed of HOV vehicles and encourage new transit service.	2020	2,799,300
N 85th Street Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to N 85th Street.	2020	21,600,000
S Holden Street Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to S Holden Street.	2020	1,000,000
SW Klickitat Way Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to SW Klickitat Way.	2020	3,450,000
W Marginal Way SW Rebuild	Seattle	King	Rebuild and make operational/ITS improvements to W Marginal Way SW.	2020	11,400,000
E. Everett Ave Overpass	Everett	Snohomish	Everett Avenue Grade Separation; construct an unobstructed grade divided railroad overcrossing off Everett Avenue to the Railroad Ave River Point area, eliminating potential vehicle/train conflicts.	2025	
Freeman Road Improvements, Levee Road to Benaroya Industrial Park Entrance	Fife, Edgewood, Puyallup & Pierce County	Pierce	Improve existing farm to market road for heavy truck use to provide access to industrial lands in Fife, Edgewood, Puyallup, and unincorporated Pierce County. Widen from 2 to 3 lanes as urban collector complete street.	2025	

Title	Location	County	Description	Completion Year	Project Estimate
26th Street East/66th Avenue Corridor, 20th Street East to Freeman Road East	Fife	Pierce	Provide a new connection between 20th Street East and the industrial zoned lands in eastern Fife, signalize intersections at 20th Street and 66th Avenue and at 26th St and 70th Ave. Construct as 3 lane urban collector complete street, plus additional turn lanes at the intersection with 70th Ave East.	2020	funding unknown
Canyon Rd E	Pierce County	Pierce	Northerly Ext. Extend major arterial roadway from its current northerly terminus to connect with the planned completion of SR-167, crossing over 2 railroads and the Puyallup River. The project would be a four-lane roadway with paved shoulders	2026	
176th St E	County	Pierce	Widen and reconstruct existing 2/4-lane road to 5 lanes. Provide non-motorized features.	2014	63,200,000
South Airport Link Project	SeaTac	King	New Construction of a south airport expressway to connect the existing north airport expressway and airport terminal drives to the planned South Access roadway and extension of SR 509 to I-5. The project would close the existing south airport entrance at S 182nd Street and International Boulevard and create a new at grade connection to the local roadway network at S. 188th Street and 28th Ave S.	2025	200,000,000
Puyallup River Bridge Rehabilitation (F16C, F16D, F16E).	Tacoma	Pierce	Bridge Construction. Widen from 1 to 2 lanes WB	2021	

Title	Location	County	Description	Completion Year	Project Estimate
12th Street East corridor completion and improvements, Port of Tacoma Road to east city limits	Fife	Pierce	Close the gap in 12th Street East between Alexander and 34th Avenues and improve other segments to provide a continuous truck route linking Fife's industrial zoned lands north of I-5 with the Port of Tacoma-owned properties north of 12th Street and with the corridors into the Port of Tacoma at Port of Tacoma Road and 54th Avenue East. Construct as 3 lane urban collector complete street.	2025	
Taylor Way	Tacoma	Pierce	Improved circulation within Port of Tacoma area	2018	3,000,000
Port of Tacoma Pier 4 Reconfiguration	Port of Tacoma	Pierce	To accommodate future growth the Port wants to redevelop the General Central Peninsula (GCP) terminal complex including the upgrade of Pier 4.	2021	
Tacoma Rail East End Yard Reconfiguration	Port of Tacoma	Pierce	East End Yard Reconfiguration		
Tacoma Rail West End Yard Reconfiguration	Port of Tacoma	Pierce	West End Yard Reconfiguration		
Port of Tacoma Interchange Improvements Fife	Fife	Pierce	Final phase of new Port of Tacoma one way roads over I-5 improving access to both the Port of Tacoma and the Fife industrial area.	2021	27,500,000
SR 3 at SR 16	Gorst	Kitsap	Eliminate lane drop on SR 16 to northbound SR 3 by extending the lane north of the railroad bridge and extending the northbound SR 3 on-ramp		
Puyallup Bridge Rehabilitation	Tacoma	Pierce	Remaining four segments of bridge replacement. First segment crossed rail line second segment will cross river.	2022	

Title	Location	County	Description	Completion Year	Project Estimate
Fairview Ave Bridge Replacement	Seattle	King	This project replaces a timber bridge structure constructed in 1948, which is in poor condition with severely deteriorated pilings. The Fairview Avenue Bridge is located at the edge of the South Lake Union Regional Growth Center. It is a primary connection from the Downtown Seattle, South Lake Union and Uptown regional centers to the University District regional center. Because of its role as one of the few arterial connections between these centers it is heavily used by freight, transit, pedestrians and bicycles serving the University of Washington and commercial uses on the east side of Lake Union.		13,333,333
Truck Emission Reduction Activities	King County	King	Installation of between 20-35 electrification pedestals at truck stops in North Bend and Sumner, WA. Creation of rebate program for trucks, servicing the Ports of Seattle and Tacoma, to incentivize the installation of 10-22 electrification interface and/or accessory power unit devices.		1,200,124
E. Marginal Way @ Horton Bridge Replacement	Seattle	King	The project will demolish an existing on-grade bridge located on E. Marginal Way, a major freight corridor, approximately between Horton St. and Hinds St. The project will demolish the roadway and bridge structure, back-fill the cavity that exists under the bridge, pave the road section with asphalt, and stripe. Sidewalks, bikes lanes, and landscape will be re-established.		5,729,100

WSDOT Unfunded Freight Investments

South Central Region

For more information including project budget please see: WSDOT 2013 Unfunded System Investments:

<http://www.wsdot.wa.gov/Funding/SystemInvestments.htm>

Title	Location	County	Description
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 99% fair and good.
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.
Maintenance & Operations system additions	Statewide		Provides for the initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of implementing capital improvements and the biennialization of costs.
I-82 West Richland - Red Mountain interchange	West Richland Legislative Districts: 16	Benton	Multi-phase improvements in the Red Mountain vicinity to improve safety at existing intersections and improve access to area vineyards.
I-82 Yakima-Union Gap economic development	Yakima Legislative Districts: 14, 15	Yakima	
I-82 South of Ellensburg - truck climbing lanes	South of Ellensburg Legislative Districts: 13	Kittitas	Construct truck climbing lanes between Selah and Ellensburg to improve congestion due to slow truck movements on steep grades.

Title	Location	County	Description
I-90 Snoqualmie Pass--widen to Easton	Snoqualmie Pass Legislative Districts: 13	Kittitas	Completes the widening from the end of the existing funded projects (MP 62) to Easton.
I-90 Ellensburg intersection improvements	Ellensburg Legislative Districts: 13	Kittitas	Construct improvements at the US 97 and Dolarway intersection adjacent to the I-90 ramp terminals to improve capacity.
US 12 near Walla Walla--complete corridor widening	Touchet Legislative Districts: 16	Walla Walla	
US 12/Old Naches Highway	Yakima Legislative Districts: 14, 15	Yakima	
SR 24 Moxee corridor widening	Moxee Legislative Districts: 15	Yakima	
Title: Oregon Avenue (I-182/SR-395 to Ainsworth Street) Plan Reference: Six Year Transportation Improvement Plan	Ainsworth Avenue to US 395 I-182/US 395/US 12 Begin Location: 46.14.54.61 – 119.04.55.62 Pasco End Location: 46.13.06.75 – 119.04.49.06 Pasco	Franklin	The Oregon Avenue (SR-397) Corridor is located between Ainsworth Avenue on the south and the US 395/I-182/US 12 interchange to the north. The Oregon Avenue Corridor, including Ainsworth Avenue and 10th Avenue serves as a critical north-south link, connecting the City with one of three regional Columbia River crossings, and providing a crucial connection for the Port of Pasco's "Big Pasco" marine terminals/rail yards to the Interstate and airport. The City of Pasco intends to widen Oregon Avenue to include a two-way left turn lane, and provide for a gateway treatment near the Port of Pasco property at the Oregon Avenue and Ainsworth Avenue intersection.

Eastern Region

For more information including project budget please see: WSDOT 2013 Unfunded System Investments:

<http://www.wsdot.wa.gov/Funding/SystemInvestments.htm>

Title	Location	County	Description
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 99% fair and good.
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.
Maintenance & Operations system additions	Statewide		Provides for the initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of implementing capital improvements and the biennialization of costs.
I-90 Spokane - widening	East of Spokane Valley Legislative Districts: 4	Spokane	Widens and makes interchange improvements on I-90 east of Spokane Valley to the Idaho State Line. Note: Regional projects 5.7, 5.8 and 5.9 are part of WSDOT unfunded project "I-90 Spokane widening". The MPO projects construct 3 interchanges and widen I-90 from Barker Rd to Harvard Rd. The WSDOT unfunded project includes those projects and also continues widening I-90 from Harvard Rd east to the Idaho state line.
Interstate 90 - Barker Rd I/C			Reconstructing the Barker Rd I/C –additional lanes over I-90 and intersection improvements - Provides room for additional lanes on I-90 and intersection improvements

Title	Location	County	Description
Interstate 90 - Barker I/C Vic. to Harvard I/C Vic.			Construct additional general purpose lanes to increase capacity
Interstate 90 Henry Road I/C			Removes existing partial interchange at Greenacres and constructs a split diamond replacement at Henry & Harvard Roads. Provides room for additional I-90 lanes to pass through the area.
US 195 Hatch Road to Meadowlane Road - new interchange	South of Spokane Legislative Districts: 6	Spokane	Construct a new interchange and associated frontage road to improve safety and mobility in the corridor.
Title: US 195 - Hatch Rd. I/C and Meadowlane Rd. I/C Plan Reference: HORIZON 2040: The Metropolitan Transportation Plan for the Spokane Metropolitan Planning Area			Construct new interchange(s) and associated frontage road to improve safety and mobility in the corridor.
US 395 North Spokane corridor	Spokane Legislative Districts: 03, 07	Spokane	Completes the construction of a new corridor between Francis and I-90. Completes the BNSF rail realignment. Builds interchanges at Wellesley and Trent Avenues. Makes improvements on I-90 to accommodate the connection with the new corridor.
NSC - Spokane River to Francis Ave. Phase 1			Construct new 4 lane section between Francis and the Spokane River including railroad realignment and Wellesley I/C. Also includes intersection improvements on Wellesley.
NSC - Spokane River to Francis Phase 2			Construct full interchanges and roadway Phase 2
NSC - Trent Ave. to Spokane River Phase 1			Construct interchange and roadway for half of facility

Title	Location	County	Description
NSC - Interstate 90 North Access Connection Phase 1			Construct interchange and roadway for half of facility
NSC - Collector Distributor System Phase 1			Reconstruction of I-90 with C/D system Phase 1
NSC - Collector Distributor System Phase 2			Reconstruction of I-90 with C/D system Phase 2
NSC - Trent Ave. to Spokane River Phase 2			Construct interchange and roadway for half of facility
US 395 from Half Moon Road to Stevens County Line	Begin Location: Half Moon Road (approx. Lat 47.860489 Lon 117.421127) End Location: Stevens County Line (approx. Lat 47.986297 Lon - 117.536217)	Spokane	Construct passing lanes.
SR 902/Spokane - interchange improvements	West of Spokane Legislative Districts: 3, 6	Spokane	Reconstructs the SR 902 Medical Lake Interchange and provides intersection and ramp improvements at the Geiger Road interchange. These improvements facilitate improved mobility for the growing development occurring in the area adjacent and around Spokane International Airport.

Title	Location	County	Description
Interstate 90 - Medical Lake I/C			Interchange Reconstruction - Reconstructs the SR 902 Medical Lake Interchange. These improvements facilitate improved mobility for the increasing industrial development occurring in the area.
Title: Interstate 90 - Geiger I/C			Interchange Reconstruction - Provides intersection and ramp improvements at the Geiger Road interchange. These improvements facilitate improved mobility for the increasing industrial development occurring in the area.

Southwestern Region

For more information including project budget please see: WSDOT 2013 Unfunded System Investments:

<http://www.wsdot.wa.gov/Funding/SystemInvestments.htm>

Title	Location	County	Description
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 97% fair and good.
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.
Maintenance & Operations system additions	Statewide		Provides for the initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of implementing capital improvements and the biennialization of costs.
I-5 Chehalis - widen corridor	Chehalis Legislative Districts: 20	Lewis	Widen I-5 between 13th and Mellen street, plus replaces the interchange at Chamber Way. Additional third lane between 13th street and SR 6 interchanges will remain an auxiliary (add-drop) lane until those interchanges are replaced.
I-5 Flood Protection	Chehalis-Centralia Legislative Districts: 20	Lewis	Constructs a series of levees and walls, and/or raises sections of I-5 to reduce the risk of I-5 closures in the Chehalis - Centralia area during flood events.

Title	Location	County	Description
SR 14 Vancouver - add lanes	Vancouver Legislative Districts: 17, 49	Clark	Construct auxiliary lanes between I-205 and 164th avenue.
I-205 Vancouver - widening	Vancouver Legislative Districts: 17, 49	Clark	Widen I-205 between SR 500 and Padden Parkway.
SR 500 Vancouver - construct interchange	Vancouver Legislative Districts: 49	Clark	

Olympic Region

For more information including project budget please see (unless otherwise noted): WSDOT 2013 Unfunded System Investments at:

<http://www.wsdot.wa.gov/Funding/SystemInvestments.htm>

Title	Location	County	Description	Project Budget Information
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.	
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 97% fair and good.	
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.	
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.	
Maintenance & Operations system additions	Statewide		Provides for initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of implementing capital improvements and the biennialization of costs.	

Title	Location	County	Description	Project Budget Information
Operation Technology Capital Improvements	Regionwide Legislative Districts: 22, 25, 27, 28, 29, 30, 32, 33, 35, 37, 38		Implement strategic operational investments to reduce congestion and collisions through improvements such as expanded system monitoring and incident detection, ramp metering, minor widening for hard shoulder running supported by lane control and variable speed limit technologies.	
I-5 JBLM corridor improvements	Lakewood-Tillicum Legislative Districts: 02, 22, 28	Pierce	The full range of Moving WA strategies to reduce congestion through this corridor. Needs include system improvements to enable hard shoulder running, interchange reconstruction to enable mainline widening and manage military gate access, and new lanes to handle overall corridor demand.	
I-5 South Tacoma HOV	Tacoma Legislative Districts: 27, 29	Pierce	Extends HOV lanes south in both directions between the SR 512 interchange and the SR 16 interchange. Reconstructs the 72nd Street and 84th Street interchanges to accommodate the widening and improve traffic movements on and off the interstate.	
SR 3/SR 304 Bremerton interchange improvement	Bremerton Legislative Districts: 26	Kitsap	Widen SR 3 to 2 lanes and extend the SR 304 southbound merge onto SR 3.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/assets/4889/T2040_AppendixM_FINAL.pdf
SR 3 @ SR 304 I/C - Ramp Modification	Begin Location: End Location:	Kitsap	Extend SB SR 3 two-lanes though SR 304 Interchanges and adjust SR 304 SB ramp to merge instead of add lane.	
SR 3/Belfair Bypass - New Alignment	Belfair Legislative Districts: 35	Mason	Constructs a new alignment around Belfair to reduce congestion and improve safety.	

Title	Location	County	Description	Project Budget Information
SR 3 Gorst intersection improvements	Gorst Legislative Districts: 35	Kitsap	Construct improvements at the intersection of SR 3 and Sam Christopherson Avenue. (Roundabout)	
SR 16 Willochet Drive interchange improvement	Gig Harbor Legislative Districts: 26	Pierce	Add ramps to existing interchange to improve safety and mobility during peak hours.	
US 101 Sequim intersection improvements	Sequim Legislative Districts: 24	Clallam	Constructs improvements at the Simdars interchange to provide full access in both directions of US 101.	
US 101/Dawley Rd Vic to Blyn Highway	Sequim Legislative Districts: 24	Clallam	Constructs a climbing lane to allow for improved mobility and safety around slow moving vehicles.	
US 101/Gardiner Vicinity	Gardiner Legislative Districts: 24	Jefferson	Constructs a climbing lane to allow for improved mobility and safety around slow moving vehicles.	
SR 162 Sumner to Orting widening	Sumner Legislative Districts: 02, 31	Pierce	Widen SR 162 to 2 lanes in each direction between SR 410 in Sumner and 96 Street E near Alderton, including widening the Puyallup River bridge.	
SR 167 Completion	Fife-Edgewood Legislative Districts: 25, 31	Pierce	Constructs a new alignment between SR 509 in Tacoma and SR 512 in Puyallup; including two lanes in each direction, and new interchanges at I-5, Valley Ave, and SR 161. As part of the Puget Sound Gateway Project, this investment is complemented by investments shown in the "SR 509 Completion" and "I-5 Tacoma to Everett mobility improvement" projects.	

Title	Location	County	Description	Project Budget Information
Title: SR 167 Corridor Completion Phase 1 Plan Reference: PSRC: Transportation 2040	Begin Location: End Location:	Pierce	Phase I includes one lane in each direction from the existing SR167 terminus at the Meridian interchange in Puyallup to I-5. There will be two lanes in each direction from the I-5/SR 167 Extension to the SR 167 / 54th Avenue.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/assets/4889/T2040_AppendixM_FINAL.pdf
Title: SR 167 HOV lane completion	Begin Location: End Location:	Pierce	Extend HOV/HOT Lanes from current termini to SR 410 in Sumner.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/assets/4889/T2040_AppendixM_FINAL.pdf
I-5/SR 512 Lakewood interchange improvements	Lakewood Legislative Districts: 29	Pierce	Selected improvements in the vicinity of the SR 512 interchange to improve mobility and relieve congestion.	
SR 704/Cross Base Highway	Tacoma Legislative Districts: 28	Pierce	Completes a new alignment between I-5 and Spanaway Loop Road.	

Northwest Region

For more information including project budget please see (unless otherwise noted): WSDOT 2013 Unfunded System Investments at:

<http://www.wsdot.wa.gov/Funding/SystemInvestments.htm>

Title	Location	County	Description	Project Budget Information
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.	
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 97% fair and good.	
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.	
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.	
Maintenance & Operations system additions	Statewide		Provides for the initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of capital improvements and the biennialization of costs.	

Operational Technology Capital improvements	Regionwide	Legislative Districts: 22, 25, 27, 28, 29, 30, 32, 33, 35, 37, 38		
I-5 Tacoma to Everett mobility improvements	Tacoma-Seattle-Everett Legislative Districts: 01, 11, 21, 27, 30, 32, 33, 37, 38, 43, 44, 46	King-Pierce-Snohomish	Investments include minor widening and traffic management systems to enable a third northbound lane at Seneca, constructing a southbound contraflow lane in the express lanes, ramp meter fill-in, hard shoulder running supported by lane control and variable speed limit technologies at various locations, integrated corridor management in the south Seattle and north Seattle areas, conversion of the express lanes to express toll lanes, and conversion of HOV lanes to express toll lanes between Tacoma and Lynnwood.	
I-5 Federal Way - triangle vicinity improvements	Federal Way Legislative Districts: 30	King	Multi-stage project to improve congestion and safety at the I-5/SR 18/SR 161 interchange. This project includes elements of unfunded Nickel or TPA project scope.	
I-5 Mount Vernon - interchange improvements	Mount Vernon Legislative Districts: 40	Skagit	Widen SR 538 under I-5 to remove the bottleneck.	
I-5 Bellingham interchange safety improvements	Bellingham Legislative Districts: 40, 42	Whatcom	Interchange improvements throughout the corridor in Bellingham.	
I-5 Marysville interchanges - improvements	Marysville Legislative Districts: 38	Snohomish		

Title: SR 529 / I-5 Interchange Completion	Begin Location: MP 198.0 Everett End Location: MP 198.7 Everett	Snohomish	Complete the current half interchange by constructing a new Interstate 5 northbound off-ramp onto SR 529 and new southbound on-ramps from SR 529 to Interstate 5	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/assets/4889/T2040_AppendixM_FINAL.pdf
I-5/SR 525 Interchange Phase	Lynnwood Legislative Districts: 32	Snohomish		
Title: I-5 Exit 274 Interchange PS&E Design	Begin Location: MP 273.5 Blaine End Location: MP 274.5 Blaine	Whatcom	PS&E for revisions to the partial interchange at Exit 274 (I-5) to a full tight diamond configuration. The design process will include geometric alignment, structural design, required right of way acquisitions, hydraulic report, environmental review/ permitting and NEPA, for construction, bid ready documents. The design will be based on data from the Border Circulation Analysis from the IMTC and the completed Interchange Justification Report (approved by FHWA - Jan, 2010).	For more information including project budget please see: Whatcom Transportation Plan at: http://wcog.org/planning/wtp/
I-90 Seattle to Issaquah - corridor improvements	Seattle-Bellevue-Issaquah Legislative Districts: 37, 41	King	Improves capacity on the I-90 corridor between I-405 and Issaquah; including improvements at the I-90/I-405 interchange. Installs infrastructure between Seattle and Issaquah that is necessary to implement tolling.	
I-90 HOV to HOT		King	Convert HOV lanes to HOT lanes	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040

I-405 Renton to Lynnwood - corridor widening	Renton Legislative Districts: 01, 21, 32, 45, 48, 11, 41	King	Widens the I-405 corridor between Renton and Bellevue; including the implementation of Express Toll Lanes (ETL), rebuilding the I-405/SR 167 interchange and rebuilding other impacted interchanges. This project includes elements of unfunded Nickel or TPA project scope.	
I-405 Corridor: SR 167 Direct HOV Ramps		King	SR 167 Interchange: Construct NB and SB HOV flyover ramps directly connecting SR 167 HOV/HOT lanes with I-405 HOV lanes north of the SR 167 Interchange. (a) Provides SB I-405 HOV/HOT to SB SR 167 HOV/HOT and (b) NB SR 167 HOV/HOT to NB I-405 HOV/HOT.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
I-405 Corridor: SR 169 to I-90 (widening)		King	(a) Add lanes NB and SB and rebuild the existing roadway from SR 169 to I-90, including the 4 ft. HOV buffer, resulting in 6 lanes (1 HOV & 4 GP & 1 Aux or 2 HOV & 3 GP & 1 Aux) in both directions. Costs of this widening are split between the various interchange projects (4320, 4321, 4322, 4323, 4324, 4325 and 4326).	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
I-405 Corridor: SR 169 to I-90 (NE 44th I/C component)		King	(e) Modify or rebuild NE 44th I/C (to accommodate future HOV Direct Access); Cost includes part of the 4318 widening through this segment.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
I-405 Corridor: SR 169 to I-90 (112th St I/C component)		King	(f) Modify or rebuild 112th St I/C (to accommodate future flyer stop and park & ride expansion). Cost includes part of the 4318 widening through this segment.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
I-405 Corridor: I-90 to SR 520 (widening)		King	(a) Add one lane NB and SB between I-90 and SR 520 resulting in 7 lanes NB (1 HOV, 5 GP & 1 Aux. or 2 HOV, 4 GP & 1 Aux.) and SB (1 HOV, 4 GP, 1 Aux & 1HOV outside) or (2 HOV, 3 GP, 1 Aux. & 1 HOV outside).	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040

I-405 Corridor: I-90 to SR 520 (Main St. Bridge component)		King	(b) Reconstruct the Main Street bridge. Cost included in 4336.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
US 2 Monroe Bypass	Monroe Legislative Districts: 39	Snohomish	Multi-stage project to increase mobility and safety in the corridor.	
US 2 Everett trestle improvements	Everett Legislative Districts: 38, 44	Snohomish		
SR 9 corridor	South of Snohomish Legislative Districts: 01, 44	Snohomish	Multi-stage improvements that widen the SR 9 corridor and make selected intersection improvements to enhance mobility and safety. This project includes elements of unfunded Nickel or TPA project scope.	
SR 18/I-90 intersection improvement	West of North Bend Legislative Districts: 5	King		
SR 20 Oak Harbor intersection improvements	Oak Harbor Legislative Districts: 10	Island		
SR 20 Sharpes Corner - intersection improvement	South of Anacortes Legislative Districts: 40	Skagit	This project includes elements of unfunded Nickel or TPA project scope.	
SR 20 Sedro-Woolley corridor improvements	Sedro-Woolley Legislative Districts: 39	Skagit		

SR 99 Lynnwood area widening	Lynnwood Legislative Districts: 21, 32	Snohomish		
SR 167 Auburn to Puyallup HOT lane extension	Auburn-Sumner-Puyallup Legislative Districts: 25, 47	King-Pierce		
SR 167		King	Construct auxiliary lanes between interchanges.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 167		King	Add 1 GP lane each direction from 15th St. NW to S. 180th St.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 509 Completion	SeaTac-Des Moines-Kent-Federal Way Legislative Districts: 33	King	Extends SR 509 south from SeaTac to I-5. Ultimately, the project includes two lanes on SR 509 and interchanges at S 188th and S 24th (allows new south access road to Sea-Tac airport), added SB lanes on I-5 to 320th in Federal Way, and improvements on I-5 in the vicinity of SR 516 to accommodate SR 509 with connections to I-5 and local routes. As part of the Puget Sound Gateway Project, it is complemented by investments shown in the "SR 167 Completion" and "I-5 Tacoma to Everett mobility improvement" projects.	
SR 518 Des Moines interchange improvement	Des Moines Legislative Districts: 33	King		

SR 509 Extension (with I-5), Phase 1		King	SR 509 Connection and I-5 Freight Mobility Project Phase 1 includes one lane in each direction between S 188th Street and S 24th/26th Ave, and two lanes in each direction between S 24th/26th Ave and I-5 with both GP &HOV/express toll lane connections to I-5, a full diamond IC at SR509/S 188th Street, a half diamond IC at SR 509/S 24th Ave to provide access to the airport via S 24/26th Ave and an improved air cargo road from S 188th Street to the airport, and a direct access to I-5 from the Kent Valley via S 228th Street and reconstruction of the SR 516 interchange. On I-5, Phase 1 also includes adding SB auxiliary lane from the extension to S 272nd St and NB auxiliary lane from the SR 516 Interchange to the extension, converting the existing I-5 HOV lanes to ETL and the upgrading inside shoulders as ETL during peak periods from the SR 509 Connection to Federal Way.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 518/Des Moines Memorial Drive Vicinity - I/C Improvements		King	Reconstruct the existing half diamond interchange at Des Moines Memorial Drive. Phase 1 includes adding an east bound off ramp from SR 518 to Des Moines Memorial Drive. Phase 2 includes adding a westbound off- ramp from SR 518 to northbound SR 509.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 520 Seattle Corridor Improvements - west end	Seattle Legislative Districts: 43	King	Completes corridor improvements between I-5 and the West High Rise to address congestion and safety needs of the corridor.	
SR 520		King	Construct new six lane connection between I-5 and Montlake Blvd. This includes reconstruction of the Portage Bay Bridge. Construct a westbound to southbound freeway-to-freeway Core HOV Connection at the I-5/SR520 interchange.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040

SR 520 Bellevue - Redmond corridor improvements - east end	Bellevue-Redmond Legislative Districts: 41, 48	King		
Bel-Red Regional Connectivity - SR 520 @ 124th I/C		King	Pending Interchange Justification effort currently underway. Upgrade the interchange to provide additional access to and from the east and construct an auxiliary lane each direction between 124th and 148th Ave. NE.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 520 @ 148th Ave NE I/C Vicinity - I/C Improvements		King	Provide 2nd eastbound grade separated off ramp access to the east of 148th Ave NE. Improve interchange ped and bike facilities along 148th Ave NE.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 520 HOV to HOT		King	Convert HOV lanes to HOT lanes	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 520 Eastbound Auxiliary Lane: NE 148th Ave to NE 40th St.		King	Construct an auxiliary lane eastbound between NE 148th Ave to NE 40th St.	For more information including project budget please see: PSRC: Transportation 2040 at: http://www.psrc.org/transportation/t2040
SR 522 Kenmore to Monroe corridor - complete corridor	West of Monroe Legislative Districts: 01, 39, 46	Snohomish	Completes widening of SR 522 between Woodinville and Monroe by adding a lane in each direction between Paradise Lake Rd and the Snohomish River, constructs new interchange at Paradise Lake Rd, and makes improvements (including widening) in the Kenmore/Bothell area.	

SR 531 Smokey Point corridor widening	Smokey Point Legislative Districts: 39	Snohomish		
SR 539 Lynden - corridor widening to border	Lynden Legislative Districts: 42	Whatcom	Completes corridor widening to the international boundary.	
Title: SR 539/Lynden, Birch Bay-Lynden Rd to SR 546 - Widening	Begin Location: MP 10.4 Lynden End Location: MP 12.68 Lynden	Whatcom	SR 539, Guide Meridian, is a border-crossing highway essential for local commerce and international freight headed to/ from the Canadian border. This section is currently a narrow two-lane roadway with minimal shoulders. Widening SR 539 to four lanes within Lynden will eliminate a bottleneck, reduce collisions and is the last portion of a critical upgrade to the corridor extending from Bellingham to the Canadian border. SR-539 has been widened to four lanes from I-5 to the Birch Bay-Lynden Road. WSDOT will be improving and widening SR-539 in the vicinity of the US-Canada border crossing. The completion of this work will leave only the gap identified with the proposed project.	For more information including project budget please see: Whatcom Transportation Plan at: http://wcog.org/planning/wtp/

North Central Region

For more information including project budget please see (unless otherwise noted): WSDOT 2013 Unfunded System Investments at:

<http://www.wsdot.wa.gov/Funding/SystemInvestments.htm>

Title	Location	County	Description	Project Budget Information
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.	
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 99% fair and good.	
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.	
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.	
Maintenance & Operations system additions	Statewide		Provides for the initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of implementing capital improvements and the biennialization of costs.	
SR 17 Moses Lake Intersection Improvements	Moses Lake Legislative Districts: 13	Grant		

Title	Location	County	Description	Project Budget Information
SR 28 East Wenatchee corridor improvements	East Wenatchee Legislative Districts: 12	Douglas	Completes a series of staged projects that constructs mobility improvements along SR 28; including widening and interchange/intersection improvements along the corridor to improve mobility and safety.	
<p>Title: SR 28 - Junction US 2/97 to 9th Street</p> <p>Plan Reference: SR 28 Eastside Corridor Project - Final EIS Final Section 4(f) Evaluation;</p>	<p>Begin Location: ARM 0.00 East Wenatchee</p> <p>End Location: ARM 3.67 East Wenatchee</p>	Douglas	The project would construct an extension of Eastmont Avenue from the intersection of SR 2/97 and Sunset Highway to Badger Mountain Road and Sunset Highway would be widened to five lanes with a divided median and U-turn intersections.	<p>For more information including project budget please see:</p> <p>Confluence 2030: A Strategic Transportation Plan for the Wenatchee Valley at: http://www.wvtc.org/mtp/</p>
US 2 and SR 285 North Wenatchee Improvements	Wenatchee Legislative Districts: 12	Chelan	Completes a series of projects of mobility improvements along US2 and SR285 in north Wenatchee; including improvements to the inter-section of US2/SR285/Easy Street and new alignment though north Wenatchee parallel to SR285.	
<p>Title: US 2 Corridor and Connections to Wenatchee</p> <p>Plan Reference: North Wenatchee Transportation Master Plan</p>	US 2 / SR 285 / Easy Street interchange and intersection in the Old Station area of Wenatchee	Chelan	IC of US 2/SR 285 will be reconstructed to allow E-bound traffic on US2 to connect directly to the Odabashian Bridge. The traffic signal at US2/Easy Street would be eliminated to allow US2 to operate as a fully limited-access freeway between Monitor and SR28 in Douglas County. Easy Street would be reconstructed to cross over US 2 to maintain connectivity between the Olds Station and Sunnyslope subareas. New interchange ramps and local circulation roadways would maintain capacity and connectivity between US 2 and the City of Wenatchee, as well as to/from the Olds Station and Sunnyslope subareas.	<p>For more information including project budget please see:</p> <p>North Wenatchee Transportation Master Plan at: http://confluenceparkway.org/files/Transportation%20Master%20Plan_Public%20Review%20DRAFT.pdf</p>

Title	Location	County	Description	Project Budget Information
US 97 Blewett Pass - truck climbing lanes	Blewett Pass Legislative Districts: 12, 13	Chelan-Kittitas		
Highway System Maintenance	Regionwide		Provides 10-year funding to maintain Nickel/TPA projects at historical level of service, eliminate backlog and catch up to the historic benchmark level of service for existing inventory, and cover increased utility costs.	
Highway Road Preservation	Regionwide		Provides a 10-year preservation investment to achieve a pavement condition in excess of 99% fair and good.	
Highway Bridge Preservation	Regionwide		Provides a 10-year preservation investment to achieve a bridge condition in excess of 99% fair and good.	
Highway Facility Preservation	Regionwide		Provides a 10-year investment in guardrail, signs, drainage systems, electrical systems, wireless communication systems, weight stations, rest areas, and roadside slopes to achieve a comparable performance to existing preservation methods.	
Maintenance & Operations system additions	Statewide		Provides for the initial cost of maintaining and operating the new system additions identified above. Actual funding over a 10 year timeframe may vary based on schedule of implementing capital improvements and the biennialization of costs.	
SR 17 Moses Lake Intersection Improvements	Moses Lake Legislative Districts: 13	Grant		
SR 28 East Wenatchee corridor improvements	East Wenatchee Legislative Districts: 12	Douglas	Completes a series of staged projects that constructs mobility improvements along SR 28; including widening and interchange/intersection improvements along the corridor to improve mobility and safety.	

Freight Unfunded Investments – Waterway

For more information including project budget please see: <http://www.pnwa.net/pnwa-fact-sheets-and-backgrounders/>

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
MCR Jetties Rehab (new start)	Benefits both deep draft Lower Columbia River counties, as well as the inland barging system beginning as far east as Clarkston, WA.		FY2014 request: Jetty "A" P&S/modeling (\$979K); surveys (\$300K); N Jetty P&S/modeling (\$600K); N Jetty head stabilization (\$550K); Jetty "A" stone acquisition (\$21.621M); N Jetty stone acquisition (\$23.050M) This project will cost \$257M	Construction, rehabilitation	The three rubble mound jetties at the MCR need major rehabilitation. These structures help maintain the depth and orientation of the navigation channel, and protect ships of all sizes (both commercial and recreational). If a breach of the jetties occurred and the MCR silted in, it could essentially block any traffic from leaving or entering the Columbia Snake River System.	U.S. Army Corps of Engineers (USACE) Pacific Northwest Waterways Association (PNWA)
Kalama Turning Basin, WA (CAP Section 107) Design & construction		Cowlitz	Potential new turning basin at Kalama, WA	Construction, rehabilitation	Waiting final approval at Corps HQ in DC. If approved, new turning basin would allow River Pilots to safely turn larger, deeper drafting vessels coming into/ leaving the system. Critical infrastructure needed to support efficiency and safety of the entire Columbia Snake River System.	USACE PNWA
Columbia River at the Mouth (MCR), OR/WA	Benefits both deep draft Lower Columbia River counties, as well as the inland barging system beginning as far east as Clarkston, WA.		FY2014: annual dredging (\$18.773M); ocean disposal SMMP (\$300K); sand island pile dikes (\$350K); North Jetty Lagoon fill (\$10.32M) & critical repairs (\$13.25M)		Annual dredging at the MCR is required to ensure authorized depth of -55'. Imperative to ensure vessels are able to fully load, and safe passage of the bar is maintained. Maintenance of the MCR Jetties, which is separate from the major rehabilitation project, is also vital to ensuring natural scouring in that location and that wave action is limited at this dangerous bar crossing.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
Columbia & Lower Willamette below Vancouver & Portland (C&LW), OR/WA	Benefits both deep draft Lower Columbia River counties, as well as the inland barging system beginning as far east as Clarkston, WA.		FY2013 needs include additional annual dredging (\$18.328M) to maintain 43' in navigation channel FY2014: annual dredging (\$38.115M); US Moorings piling removal (\$5.0M); contract dredge (\$5.772M); Essayons dredge (\$1.845); pile dike safety markers (\$1.522M); dredging at Old Mouth of the Cowlitz (\$1.208M); Albina turning basin sediment sampling \$1.080M and maintenance dredging (\$11.107M); pile dike major maintenance report (\$350K); Astoria turning basin dredging (\$1.634M); Westport Slough dredging (\$1.149M); DMMP for side channels (\$90K); Hammond Boat Basin breakwater evaluation (\$300K); Lake River sediment evaluation (\$105K); Portland Harbor sediment Sampling/ analysis (\$135K)	Construction, rehabilitation	Dredging for this deep draft navigation channel near the Ports of Vancouver, Kalama and Longview is essential to maximizing the newly deepened 43' channel. With cargo such as grain moving into the lower river by barge and rail, a fully maintained channel will continue to ensure our just in time delivery system is able to operate most efficiently and move the maximum amount of commercial cargo.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
Seattle Harbor, WA		King	FY2014: comprehensive survey & completion of environmental documents for FY2015 dredging cycle	Construction, rehabilitation		USACE PNWA
Tacoma Harbor, WA		Pierce	maintenance dredging	Construction, rehabilitation		USACE PNWA
Grays Harbor, WA		Grays Harbor	FY2014: inner & outer harbor dredging, options (\$6M) for increased dredging of entire channel to accommodate larger vessels	Construction, rehabilitation		USACE PNWA
Bonneville Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.		Bonneville Lock & Dam FY2014 request: routine O&M (\$5.902M); management of ESA listed species (\$1.304M); sea lion harassment monitoring & evaluation (\$74K); Bradford Island feasibility study & ROD (\$325K); spillway major rehab report (\$1.030M)	Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
The Dalles Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.		FY2014 request: routine O&M (\$2.588M); D/S gate inspection (\$1.1M); E&D for navlock control system (\$300K); E&D for U/S gate replacement (\$500K); fish passage mitigation (\$570K)	Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA
John Day Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.		FY2014 request: routine O&M (\$2.872M); fish hatchery operation mitigation (\$1.874M)	Construction, rehabilitation ITS	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
McNary Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.		FY2014 request: routine O&M (\$8.382M); D/S mitre gate interim repair (\$300K)	Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA
Ice Harbor Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.		FY2014 request: routine O&M (\$4.630M); U/S gate trunnion hubs (\$400K); P&S for dolphin repair (\$400K)	Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
Lower Monumental Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.			Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA
Little Goose Lock & Dam			Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington State ship goods through the lock and dam system as well.	Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
Lower Granite Lock & Dam	Benefits entire CSRS barging system including Asotin, Garfield, Columbia, Walla Walla, Benton, Klickitat, Skamania, Clark and Cowlitz Counties. Many other counties in Washington ship goods through the lock and dam system as well.		FY2014 request: routine O&M (\$3.183M); contract for channel maintenance (\$6.5M); navlock sill plate repairs (\$684K)	Construction, rehabilitation	Proper maintenance of 8 locks and dams on the Columbia Snake River System (CSRS) ensures continued viability the inland portion of the CSRS, and the entire system and region. Barging is the least cost, most fuel efficient mode of transportation and allows goods to move from eastern Washington ports to the Lower Columbia River ports. A viable barge system and fully maintained 14' inland navigation channel allows Eastern Washington farmers and paper products manufacturers to compete globally in the world market.	USACE PNWA
Swinomish Channel (Port of Skagit & Port of Anacortes)		Skagit	There is no FY2014 request for the Swinomish Channel since it was just recently received federal funding for maintenance dredging in FY2012. This navigation channel requires maintenance dredging every three to four years, so there will be future funding requests coming down the pike.	Construction, rehabilitation	Maintenance dredging is critical to ensuring a fully maintained 12' channel on the Swinomish. Marine related businesses at the Port of Skagit alone generate \$92.6M annually, and produce 1,045 maritime-related jobs in boat building, maintenance and repair; log towing; fishing; dry boat operations; and recreational boating. The Swinomish and Upper Skagit tribal fishing fleets also utilize this channel.	USACE PNWA

Title	Location	County	Description	MAP-21 Eligibility	Project Benefits	Sponsor
Columbia River at Baker Bay (Port of Ilwaco)		Pacific	Maintenance dredging	Construction, rehabilitation	<p>The entrance channel to the Port of Ilwaco requires annual maintenance dredging. A fully maintained channel is required for efficient and safe passage of the commercial fishing fleets that homeport in this location.</p> <p>Approximately 30 million lbs. of fish were at the Port of Ilwaco in 2012, with an est. value of \$25 million. They not only have an 850 slip marina and commercial and recreational fishing, but also seafood processing and light industrial activities.</p>	USACE PNWA
Columbia River b/t Chinook & Sand Island (Port of Chinook)		Pacific	Maintenance dredging	Construction, rehabilitation	<p>The entrance channel to the Port of Chinook requires annual maintenance dredging. A fully maintained channel is required for efficient and safe passage of the commercial fishing fleets that homeport and process fish and crab in this location. There are 15 port dependent business that rely on a fully dredged channel, including seafood processors processing 3.6M lbs. of crab estimated at \$8.5M annually.</p>	USACE PNWA